Index to Mechanical Engineering

Volume 64, January—December, 1942

(A) denotes Abstract; (BR)Book Review; (C) Correspondence; (D) Discussion; (Ed) Editorial; (P) Photograph

ABBOTT, W. L. Receives Washington Award	320
Acceleration Aviation physiology (A)	386
Acoustic Fence New sentry system (A)	489
Acoustics Ingenious sound-room tests units on con-	
veyer line	799
ADULT EDUCATION. See Education. AEROEMBOLISM	386
Agriculture Mechanical harvesting of cotton	604
White Burley tobacco 187, (D)	555
Air. See also Gases. Thermodynamic properties of air	270
Air Conditioning Air filters for airplane-engine protection. White Burley tobacco187, (D)	205 555
Air Filters Air filters for airplane-engine protection	205
AIRCRAFT ENGINE Dynafocal suspension for	295
Engine parts	314
Engine parts	100
Silver bearings	227
AIRCRAFT FACTORIES Underground aircraft factories (A)	484
Aircraft Industry Forum on aviation management	479
Steel, stainless, bibliography	597
AIRPLANE MANUFACTURE	
Cold-rolled stainless steels in aircraft Design for air supremacy	589 470
Photographic templates	787
Plastics bibliography	300
Plywood bibliography	299
Shop problems (A) Stainless steel bibliography	571 597
	334
Airplane Propellers Propeller blades from seamless steel tub- ing (P)	558
AIRPLANE WINGS Heat therapy (A)	903
Airplanes fit to fight	847
Aviation physiology (A) Langley's "Aerodrome" (A)	386
Langley's "Aerodrome" (A) N.A.C.A. annual report (A)	$\frac{905}{227}$
Airports Bibliography	383
Capacity of air-carrier terminals	377
Layout of	382 381
Air Raid	
Alarms—Toledo Section did it (Ed)	845 863
Emergency repair of gas mains Proneness to damage of plant through enemy action (A)	
	521
ALDEN, CARROLL R. Alex Dow and the shell-turning machine ALDINGER, KARL	414
The great waste (C)	808
ALFORD, LEON PRATT Biographical sketch	96 59
ALLEN, FRANK J. Material substitutions	32
ALLOYS Importance of alloy-scrap segregation	452
Manufacture and processing of aluminum	558
and its alloys	
ing linings. Steel. See Steel Alloys.	443
ALUMINUM	471
Aluminum pot and pan drive Degassing molten aluminum (A)	451 393
Manufacture and processing of aluminum	000
and its alloys	558
AMERICAN ASSOCIATION FOR THE ADVANCE-	
MENT OF SCIENCE Engineering sessions, New York	920 426
Summer meeting is canceled	
Organized	687

	PAGE
Issue	Numbers
January	1- 92
February	93-170
March	171 - 254
April	255 - 332
May	333-430
June	431-512
July	513-578
August	579-642
September	643-692
October	693-766
November	767-842
December	843-932

0.00	
American Institute of Electrical Engi-	
NEERS Bibliography published on electrical	
safety	821
Elects officers	638
METALLURGICAL ENGINEERS	
Coal Division—Joint conference with A.S.M.E. directed to war effort	686
Coal Division—Joint meeting with A.S.M.E., St. Louis	816
AMERICAN MANAGEMENT ASSOCIATION Production for Victory conference. 426,	821
AMERICAN SOCIETY FOR TESTING MA-	021
TERIALS Emergency specifications and changes de-	
veloped	508
Elects officers	638
Standards on petroleum products and lubricants	922
AMERICAN SOCIETY OF MECHANICAL ENGI-	
Activities, Annual Meeting	54
Aims and objectives of	373
Meeting, Cambridge, M.I.T., 1942,	
Activities, Annual Meeting. Aims and objectives of. Applied Mechanics Division National Meeting, Cambridge, M.I.T., 1942, 504, A.S.M.E. is ready (Ed).	628
Aviation Division activity (Ed)	582
Budget increased	242
Budget increased	242
Houston meeting.	240
Awards. See Honors and Awards. Boiler Code. See Boiler Code.	
Budget for 1942-1943	630
Business meeting	56
Candidates for membership and transfer 92, 170, 254.	
92, 170, 254, 322, 430, 512, 578, 642, 692, 766, 830, Committees	932
Annual Meeting committees51, 68,	71
Committee appointments	817
Committee appointments	
Committee on Engineering Organiza-	406
	242
Committee on Engineers' Civic Respon- sibilities	95
Committee on Registration established	242
Committee on Registration established Committee on War production243, History and development of Boiler	578
History and development of Boiler Code Committee	153
St. 1 1 1 56, 157,	500
Technical ressions at Annual Meeting 51	409 68
Nominating Committee for 1942. 56, 157, Standardization Committee procedure Technical sessions at Annual Meeting 51, Co-operation with A.M.A Council	502
Actions at 1942 Semi-Annual Meeting, Cleveland, 1942	630
DT 95	

MERICAN SOCIETY OF MECHANICAL ENGI- NEERS (continued)	
Council (continued) Meetings. Members of	59 56
Meetings. Members of Report for 1941. Council Executive Committee Actions 232, 407, 502, 568, 665, 817	40
Actions. 242, 407, 502, 568, 685, 817, Fellows. See Membership. Finance Committee	919
Report, 1940–1941	49
Joint conference directed to war effort Joint meeting, St. Louis. Group conferences and Group Delegates conference. See Local Sections.	686 816
Heat Transfer Division Symposium on heat transfer 409, Hydraulic Division Joint Conference,	568
Iowa City	408
Local Sections Group Delegates Conference Officers for 1942 Group Delegates Con-	73
ference,	75
ference, Machine Shop Practice Division. See Production Engineering Division. Management Division	165
Local Sections urged to aid conserva- tion	322
Mechanical Catalog and Directory, 1943	818
Medals. See Honors and Awards.	010
Annual Meeting, 1941	51 918
Meetings, National Annual Meeting, 1941 Annual Meeting, 194254, 753, 831, Fall Meeting, Rochester, 1942 627, 683, 755.	814
Fall Meeting, Rochester, 1942 627, 683, 755, Semi-Annual Meeting, Cleveland 319, 404, 500, Spring Meeting, Houston 73, 155, 238, 241,	567
Spring Meeting, Houston	410
Tabular analysis of 1941 meetings Meetings of Sections	822
Members Deaths reported	830
Do you know members who are prison- ers of war?	687
Members in the services	568
Candidates for	932
Membership list Mailed to all members	242
Memorial biographies 1942 copy sent on request	830
Officers K. M. Irwin named Vice-President	243
Officers elected by letter ballot Officers nominated for 1942-1943.567, Oil and Gas Power Division	819 634
Conference at Peoria, 1942	632
tionary and automotive Diesel en-	81
gines available	503
Photographic exhibit, 1941 Power Division	65
Power-plant problems	669
Codes. Production Engineering Division plans.	165
Professional divisions Technical sessions at Annual Meeting.	51
Publications	433
A gratifying response (Ed). Aims and objects of The American Society of Mechanical Engineers (D)	232
1943 A.S.M.E. Mechanical Catalog and Directory out	818
A.S.M.E. membership list (Ed) Charge to be made for meeting pre-	174
Index to 1941 volume of MECHANICAL	502
ENGINEERING List of A.S.M.E. Publications Mechanical Catalog and Directory Mechanical Engineering subscription	I-81 819
Mechanical Catalog and Directory Mechanical Engineering subscription	408

AMERICAN SOCIETY OF MECHANICAL ENGI- NEERS (continued)		BAKER, H. D. New heat-transfer research tool (Ed)	95	BOILER TESTS Spreader stokers applied to marine boil-	
Publications (continued) "Mechanism of Lubrication" 1942 Memorial Biographies sent on re-	819	BAKER, R. H. What can be done to train women for jobs		BOILERS	549
Preprints of 1942 Annual Meeting	830	in engineering (A)	853	Forced-circulation boiler (A)	136
Railroad Division	836	Better wage indices for metalworking plants	291	Forced-circulation boiler (A)	287 549
Comment on committee personnel Discussion—Mechanical engineers in transportation industry	231	BALUN, JOHN J. Receives Charles T. Main Award	59	Boissevain, M. G. J. Comparison of power-plant heater ar-	
Personnel	313	Bangs, John R. Industrial marketing in a defense econ-		rangements	184
Allocating research projects	321 42	omy Barber, R. W.	211	BOLTED JOINTS Load relations in bolted joints Correction	607
Council report, 1941 Report—Part 1, Fluid Meters Correction Rotative Product Fund	328	Physical properties of laminated plattics	888	Bonnalie, A. F. Capacity of air-carrier terminals	
Shell-forging contract. Standardization Committee Procedures.	407 502	BARNES, G. M.	17		311
Standardization Committee Procedures Student group conferences	409 250	Designing for defense	11	Air conditioning principles	563
Student group meetings, 1942	761	Quality control with sampling inspection		Career in engineering	150
War Production Committee Inspects Aberdeen Proving Ground	818	BARTLETT, LUIS H	678	Coming showdown Dynamics of industrial democracy623,	741
Woman's Auxiliary Annual meeting	76	Quick and flash freezing of foods	647	Economics of social security. Elements of heat-transfer and insulation	811
A.S.M.E. APPLIED MECHANIC'S DIVISION National Meeting	628	BATT, WM. LOREN Honored by Stevens War production—task of the engineer	504 519	Engineer's manual of statistical methods Financial policy of corporations Fiscal policy and business cycles	899 288
A.S.M.E. COUNCIL		BAUMEISTER, THEODORE	319	Industrial statistics	613
Executive Committee Actions	919	Engineering curricula (C)	142	It's about time	150 676
A.S.M.E. Is READY (ED)	3	BEALE, LOUIS SIR Men and machines	584	Management and morale	38
A.S.M.E. MECHANICAL CATALOG AND DIRECTORY	818	BEARING METALS. See also Babbitt.		change	805 497
A.S.M.E. MEMBERSHIP LIST	010	Bearings and lubrication	259 439	Marks' handbook	402
Mailed to all members	242	Some aspects of industrial lubrication	525	Mathematics dictionary Modern air conditioning, heating, and	811
A.S.M.E. MEMORIAL BIOGRAPHIES 1942 copy sent on request	830	Tin-base bearing metals Bearings. See also Antifriction Bearings.	887	ventilating	563
		Automatic autographic wear-measuring		Nature of thermodynamics. Plant production control.	402
A.S.M.E. News		deviceBearings and lubrication	289 259	Proceedings of the Thirteenth Semiannual Eastern Photoelasticity Conference	810
A.S.M.E. Woman's Auxiliary	76	Bearings for Diesel engines		Production control	751
American Society of Tool Engineers Elects officers	426	Intermittently loaded sleeve bearings	667	Production engineering Shop management for the shop supervisor	317
AMERICAN STANDARDS ASSOCIATION		Intermittently loaded sleeve bearings Lubrication of	442 227	Surface finish	915 352
Annual luncheon meeting	80 155	Some aspects of industrial lubrication Surface finish of journals	525	Theory of prices Top management organization and con-	481
Emergency standards to be developed for	688	Веск, Отто	*10	trol	522
W.P.B. and O.P.A. New list of American Standards for 1942 424,		Some aspects of industrial lubrication	525	True steel Wood technology	316
New standard symbols for hydraulics and	921	Beers, R. L. Recent developments in spreader-stoker		Your career in engineering	
mechanics approvedOfficers for 1942	321 80	firing	867	BOOKS RECEIVED IN LIBRARY	811
Photographic and graphic arts exhibit		How to make belts last longer	488	Boring, M. M.	011
AMERICAN WELDING SOCIETY	040	Bender, Rent J. Twenty years of progress in domestic oil		Educational and training program at G.E.	217
Grease and Oil Guide available New welding standards		heating	731	Bouton, E. M.	410
Armstrong, Floyd E.	000	Bennett, G. K. Subordinate personnel (D)	396	Modern elevator practice193, (D)	618
Problem of investment in 1942	221	BERLINER, J. F. T.		BOYER, GLENN C. Design of internal-combustion-engine	
Army Engineering Army Specialist Corps	615	Urea treatment of lumber181, (D)	678	power plants	541
Assel Cross-Roll Elongator Mill Witter shell-forging process		BERNA, TELL Industrial marketing and national defense	213	Brain Power Conservation of brain power (Ed)	434
ATHERTON, A. L.		BigeLow, M. H.	679	Brass Physical properties of brass cartridge	
Ingenious sound room tests units on con- veyer line	799	Urea treatment of lumber (D)	678	cases	119
ATWOOD, J. L. Design for air supremacy	470	Fifty-year member	58	Briggs, C. B. Coal-handling systems (D)	230
AULT, E. S.	****	Cold-rolled stainless steels in aircraft	589	BRIGHT, ARTHUR A. Technology in our economy (BR)	352
Kinematics and mechanisms (D) Australia	744	BITUMINOUS COAL. See also Coal. Domestic stoker for bituminous coal	599	BRILL, GEORGE M.	
Australia's war effort (A)	309	BLACK-OUTS Instruction booklet issued	244	Fifty-year member Broaching	58
Automatic Control Marine boilers	680	BOILER CODE	211	Broaching of rifling in cannon	113
Modern elevator practice	193	Increased stress allowance for boiler de- sign	495	BROOKE, MINOTT White Burley tobacco (D)	555
AVIATION. See also Military Aviation. Capacity of air-carrier terminals	377	Interpretations. 72, 234, 315, 397, 493, 559, 622, 681,	911	BROWN, ROBERT STANLEY	
Management forum Physiology and therapeutics	479 386	Proposed revision of Section VIII	354	Fifty-year member	58
AWARDS. See Honors and Awards.		146, 234, 315, 398, 490,	682	Thermodynamic properties of air	270
		BOILER CODE COMMITTEE History and development of	153	Bullard, Robinson Machine-shop operations	457
		Boiler Corrosion. See also Corrosion. Bibliography	893	BURNERS. See also Oil Burners.	P40
В		Caustic embrittlement research brings results.	891	Bibliography of oil burners	$\frac{740}{426}$
		BOILER FURNACES	041	Principal function of pulverized-coal burners.	365
BABBITT	005	Meeting wartime fuel problems Principal function of pulverized-coal	697	Twenty years of progress in domestic oil heating	731
Use of	263	burners	365	Bush, George F.	
Field of usefulness	439	Recent developments in spreader-stoker firing	867	Was Washington an engineer?	130
BAILEY, E. G. Better utilization of coal	301	Use of mixtures of oil and coal in boiler furnaces	793	Bushnell, Frederic N. Fifty-year member	58
Coal follows through	771	BOILER STEAM PURIFIERS	284	Business Planning will win the peace	97
Receives first Percy Nicholls Award	910	Cyclone steam separator	401	Planning will win the peace	36

BUTADIENE. See Synthetic Rubber.		COKE AND COKING. See Fuels.		DAYTON, R. W.	
Buxton, H. C., Jr. Deficit spending and national income (C)	145	COLLECTIVISM. See Economics, Industry.		Intermittently loaded sleeve bearings Surface finish of journals	667 718
Denetropending and matterns income (c)		Collins, Bertrand R. T. Fifty-year member	58	DEFENSE DOLLAR	
		COLLOIDAL FUEL		How we are spending it	138
•		Use of mixtures of oil and coal in boiler	793	Degassification Degassing molten aluminum (A)	393
C		furnaces	199	DE JONGE, A. E. RICHARD	
		Domestic stoker for bituminous coal	599	What is wrong with "kinematics" and "mechanisms?"273, 744,	747
CABOT, PAUL C.		Calculations, marine boilers 279, (D) Meeting wartime fuel problems	680 697	DE LOBENZI, OTTO	
Organization and operations of the Bu- reau of Industrial Conservation, War		Principal function of pulverized-coal		Spreader stokers applied to marine boil-	910
Production Board	449	burners Recent developments in spreader-stoker	365	ers	810
CADMIUM		firing Twenty years of progress in domestic oil	867	Rotating pendulum detuners (A)	138
Allowable concentration of, standard available	155	heating	731	DEXTER, GREGORY M.	757
CAMPBELL, GORDON		CONDIT, KENNETH H.	400	An appeal to members of the Society	131
Fifty-year member	58	Plant production control (BR)	402	Dickerman, William C. Mechanical engineers in the transporta-	
CANADA Hydroelectric power in Canada (A)	229	vage, Scrap.		tion emergency Dickinson, J. A.	35
CAPITALISM. See also Economics, Industry.		Aluminum pot and pan drive Conservation and salvage (A)	451 134	Modern elevator practice (D)	618
Free enterprise and world politics	215	Conservation in electric motor and con-		Dies	
	210	trol industry Design of oil-field tank batteries for con-	820	Plastic models for use in defense courses in die design and die making	484
CARACRISTI, V. Z. Principal function of pulverized-coal	205	servation	680	DIESEL ENGINES. See Engines-Internal-	
CARBON DIOXIDE	365	salvage. (Symposium)	449	Combustion.	
Freezing of CO2	473	Essentials and substitutes (A) Handling chips.	391 480	Doble, William A. Fifty-year member	58
Carmichael, Colin Kinematics and mechanisms (D)	744	Instructions on care of tools	244	Dodge, H. F.	070
CARNEGIE, ANDREW	144	Larger welding rod (A) Logistics—the problem of delivering the	309	Quality control (D) Doherty, Robert E.	678
Carnegie's part	232	goods. Meetings planned	384	Professional development and responsi-	
CARRIER, W. H. White Burley tobacco (D)	555	Salvage report card issued by B.I.C	406 482	bility	10
CARTER, HENRY W.	333	Scrap	486 451	Dolan, Thomas J. Load relations in bolted joints	
Receives Fifty-Year Medal	568	War production—task of the engineer	519		688
Cartridge Cases Physical properties of brass cartridge		War-waste poster makes effective display Waste-elimination poster for welding and	385	Domestic Furnaces Twenty years of progress in domestic oil	
cases	119	cutting industry	472	heating	731
CEMENTING UNITS	200	Whither industry in democracy's arsenal Conservation and Reclamation	7	Doody, Francis S. Social security and the economy	132
Pumps for oil-well cementing (A)	388	Management Division offers suggestions	322	DooLittle, J. H.	102
Censorship (C)	909	Mechanical engineers in the transporta- tion emergency	33	Receives Daniel Guggenheim medal	633
Publications in wartime (Ed)	696	Reclaiming and using scrap materials	25	Dow, ALEX Editorial	336
CHEMICAL ENGINEERING, Olin Hall, Cornell University, dedicated	827	Conversion Converting the small plant to war pro-		Tribute to, at meeting describing shell-	
CHINESE INSTITUTE OF ENGINEERS	02.	duction. Full use of production facilities	477	turning machine he suggested 413, DOYLE, W. L. H.	502
America section reorganized	919	Full use of production facilities	569 335	Examples of conservation and reclama-	
CHRISTY, W. G. Manager of A.S.M.E	56	War production clinics (Ed)		tion	27
CHROMIUM PLATING		Conversion Table Unit for heat-transfer rates118, (D)	557	Drabelle, J. M. Coal-handling systems (D)	231
Chrome-hardening cylinders (D)	395	COOKE, HARTE	551	Operating responsibilities (D)	232
Circuit Breakers Design of internal-combustion engine		Given fiftieth-anniversary dinner	425	Drafting Plastic models of drawing problems	485
power plants	543	CORNELL UNIVERSITY Olin Hall of Chemical Engineering dedi-		DRAWING AND DESIGN	
CIRCUIT-INTERRUPTING DEVICES Bibliography published by the American		cated	827	Designing for defense	17
Institute of Electrical Engineers	633	Corrosion		and standardization	30
CITIZENSHIP	101	Bearing corrosion test specimens Corrosion and bearing-surface deposits	530 446	Whither industry in democracy's arsenal Drew, T. B.	7
An engineer in public affairs	161	Power-plant problems (D)	669	Elements of heat-transfer and insulation	
Civics for engineering students (Ed)	95	COTTON Mechanical harvesting of cotton	604	(BR) Drewry, M. K.	811
Civilization Education needed (Ed)	516	COUNCIL, A.S.M.E.	002	Coal-handling systems (D)	231
CLARK, WALTER T.	310	Executive Committee Actions	919	Drille des belegie en en en elle	Chr
Salvage of fibers, papers, and rags	460	Chara Orregon		Drilling deep holes in magnesium alloys Drying	311
CLAYTON, J. PAUL Honored by Tulane	504	Meeting wartime fuel problems	697	Urea treatment of lumber 181, (D)	678
CLEMENCE, RICHARD	004	War production—task of the engineer	519	White Burley tobacco 187, (D) DYNAFOCAL SUSPENSION	555
Fiscal policy and business cycles (BR)	288	CUBA		Radial aircraft engine	295
CLEMENT, J. K. Shop problems in ordnance manufacture		Cubenec, A. B.	243		
(A)	570	Modern shell forging (D)	314		
COAL		CULLIMORE, ALLAN R.		E	
A.S.M.EA.I.M.E. war conference Better utilization of coal.	686 301	True steel (BR)	316	. ь	
Coal follows through	771	Education and industry	654	P 1 2	
Coal-handling systems (D). Domestic stoker for bituminous coal	230 599	CUTTING FLUIDS		EARLE, JAMES S. Nonferrous scrap in war production	453
Meeting wartime fuel problems Pulverized-coal burners	697 365	Reclaiming and using	25	EASTERN PHOTOELASTICITY CONFERENCE	
use of mixtures of oil and coal in boiler				Ec Nomics	
furnaces. Waste (C)	793 807			America must decide	481
weighing (D)	231	D		Deficit spending and national income (C) Democracy and collectivism (BR)	145 676
COAL BUREAU The Upper Monongahela Valley Associa-		D		Fiscal policy and business cycles (BR)	288
tion formed by coal-industry leaders	40.0			Free enterprise and world politics Lessons of war (Ed)	$\frac{215}{581}$
in West Virginia	425	DANIELS, GEORGE C.		Lessons of war (Ed)	516
The great waste (C)	807	Coal-handling systems (D)	230	Philosophy of engineering education Planning will win the peace	340 97
Coe, John P.		DAVIES, S. F. Modern elevator practice (D)	618	Professional development and responsi- bility	10
Scrap-rubber salvage	459	DAVIS, HARVEY N.		Reinvestment of corporate earnings (BR)	899
Biography	635	Appointed head of Office of Production Research and Development (Ed)	846	Social security and the economy Technology in our economy (BR)	$\frac{132}{352}$
		,		, , , , , , , , , , , , , , , , , , ,	

EDITORIALS		ELEVATORS		ENGINES-AIRCRAFT	
A glance at education	645	Modern elevator practice	193	Air filters for airplane-engine protection	205
A gratifying response	433 173	ELLENWOOD, F. O.	141	Dynafocal suspension	295
Alford, L. P	96	Engineering curricula (C)	141	industry	314
A.S.M.E. aviation	582	Ellingson, Mark Co-operative education	659	Engines—Internal Combustion	
"Face Lifting"	769	ELLIOTT, LOUIS		Bearings and lubrication	259
A.S.M.E. is ready	. 3	Meeting power demand during war	872	Bearings for Diesel engines	439 395
A.S.M.E. membership list British view of production.	174 646	EMBRITTLEMENT	000	Cost and performance data on stationary	
Civics for engineering students	95	Bibliography	893	and automotive Diesel engines availa-	91
Commencement 1942	336	results	891	Design of internal-combustion engine	81
Common interests	258 434	EMPLOYEE SELECTION		power plants	541
Conversion	258	Subordinate personnel (D)	396	Rotating pendulum detuners (A)	138
Covers	695 769	EMPLOYMENT.	5	Eshelman, J. W. Biography	633
10-Day launch	769	America must decide Engine Cooling Systems	9	ESTES, WILLIAM W.	000
Alex Dow Education needed	336	Design of internal-combustion engine		Fifty-year member	58
Engineering as a career	516 257	power plants	541		
Extension of the art of management	581	Engineering. See also Army Engineering,			
Guidance of young engineers		Vocational Guidance, Career in engineering (BR)	150	-	
Manpower		Engineering as a career (Ed)	257	F	
More preparedness	516	Philosophy of engineering education	340	-	
New heat-transfer research tool New W.P.B. office	95 846	Engineering Foundation	000	FACTORY PROTECTION	
Prelude to planning	696	Annual Meeting	920 83	New sentry system (A)	489
Preparedness	515	Engineering Materials	-	FEEDWATER HEATERS	
Rackham memorial	696 174	Standardization bibliography	554	Comparison of power-plant heater ar-	** 0.
Salvage begins at home	257	ENGINEERING, SCIENCE, AND MANAGEMENT		FEEDWATER TREATMENT	184
Selection and guidance	770	DEFENSE TRAINING		Caustic embrittlement research brings re-	
Surface finish	845	Advanced instruction and research in me- chanics at Brown University	324	sults	891
War production clinics	434	Education for defense	23	FELT	000
We are at war W. H. Winterrowd	3	Engineering Societies		Felt mountings for machines (A)	307
	4	Aims and objectives of the American So-	979	Felt Association, Inc. Felt mountings for machines (A)	307
Advanced instruction and research in		ciety of Mechanical Engineers New officers of The Institution of Me-	373	Fences	001
mechanics at Brown University156,	324	chanical Engineers	425	New sentry system (A)	489
Civics for engineering students (Ed)	95 659	Engineering Societies Building		FERGUSON, JOHN W.	
Co-operative education Education and industry	654	Carnegie's part	232	Fifty-year member	58
Education for defense	23	ENGINEERING SOCIETIES LIBRARY	400	Fiber	400
Education needed (Ed) Educational and training program at G.E.	$\frac{516}{217}$	Library board revises book-loan rules Library services	408 812	Salvage of fibers, papers, and rags Filters	400
Engineering courses	208	Photostat and microfilm service	573	Air filters for airplane-engine protection.	205
Engineering curricula (C)	141 340	Engineering Societies Personnel Serv-		FINANCE	
Philosophy of engineering education Plastic models of drawing problems	485	Positions available 89, 168, 252,		Problem of investment in 1942 Reinvestment of corporate earnings (BR)	221 899
Professional development and responsi-	10	330, 428, 510, 576, 640, 690, 764, 828,		FINLAY, W. W.	000
Scientific production (A)	907	W. H. McBryde reports	166	Reclaiming and using scrap materials	25
Summer management course at Iowa	324	Engineering Society of Detroit Rackham memorial (Ed)	174	FIRE PREVENTION	
Vocational education and the war What can be done to train women for jobs	664	ENGINEERING WAR EFFORT		Magnesium fires Firing Methods	617
in engineering (A)	853	Engineer at war (radio programs) 638,	686	Function of Pulverized-Coal Burners	365
"mechanisms?"	744	Engineers. See also Vocational Guidance.		Fish, E. R.	
Young A.S.M.E. members in U.S. Army		A.S.M.E. is ready (Ed) Education needed (Ed)	516	Reviews work of Boiler Code Committee.	154
are eligible for officers' schools	81	Engineer and citizenship during the pres-		Fiske, Wyman P. Problems of management (BR)	522
EDWARDS, G. D.		ent emergency	825	FLAD, EDWARD	344
Quality-control procedures in ordnance inspection	673	Engineering courses Engineers are thinking people	208 583	Fifty-year member	507
Efficiency		Engineer's job in war production	517	FLAME HARDENING	
British view of production (Ed)	646	Government—Only five engineers in Con- gress.	430	Practical application of flame hardening.	531
Don't waste it (Ed)	769 622	Guidance of young engineers (Ed)	173	FLANDERS, RALPH E. Appointed to the Economic Stabilization	
Outlook for adult education	662	How engineers can speed victory	518	Board	822
Plant efficiency	560	Mechanical engineer in war	410	FLANGES	
EGGLESTON, H. L.		tion emergency	33	Boiler Code flange stress formulas	147
Manager of A.S.M.E	56	Operating responsibilities (D) Our war—our peace	232 517	FLOORS	
ELECTRIC GENERATORS Design of internal-combustion engine		Past and future education of engineers	657	Industrial plants	000
power plants	541	Professional development and responsi-		Grinding and slag dumps	459
ELECTRIC MOTORS		Selection and guidance (Ed)	770	FLUID METERS	
Conservation in electric motor and control	820	Selective Service System and National		Correction to A.S.M.E. Research Report -Part 1, Fluid Meters	328
industry	020	Roster	243	Food Processing	020
ELECTRIC POWER. See also Power. Meeting power demand during war	872	Engineers' Council for Professional Development		Quick and flash freezing of foods	647
ELECTRICAL CONDUCTIVITY		Additional curricula accredited	919	FORD, EDSEL B.	
High pressures (A)	312	1942 Annual Meeting completes tenth	894	Elected president, Rackham Foundation.	629
ELECTRICAL EQUIPMENT	543	Constituent bodies report	895	Modern shell forging (D)	314
Power plants	949	Engineering as a career (Ed)	257	FOSTER, J. S.	
ELECTRICAL TESTING LABORATORIES RE- ORGANIZED	508	Guidance of young engineers (Ed)	$\frac{328}{173}$	Fifty-year member	58
ELECTROLYTIC POLISHING AND ETCHING	-	Manual for committees of engineers in-		FOUNDRY PRACTICE	000
Electrolytic polishing cell (A)	140	terested in engineering education and the engineering profession	755	Degassing molten aluminum (A)	393 497
ELECTROCHEMICAL SOCIETY		Professional development and responsi-		FRANKS, RUSSELL	
Organizes corrosion division	922	Report on accrediting	10 76	Cold-rolled stainless steels in aircraft	589
ELECTRON ACCELERATORS 20,000,000-volt electrons (A)	307	Engineers' Defense Board		FRANZ, FREDERICK	744
ELECTRON MICROSCOPE	001	Recommends changes in federal specifica-	90.		744
Snowflakes and metallography	560	tions	321	FREEMAN, C. F. Vice-President A.S.M.E	56
ELECTROPLATING		Engineers' Registration Massachusetts Registration Board organ-		FREEMAN, RALPH E.	
Chrome-hardening cylinders (D)	395	izes	426	Democracy and collectivism (BR)	676
Tin plating Electrostatic Separators	488	Engineers' Society of Western Pennsyl-		FREEZING FOODS	653
Grinding and slag dumps	459	Annual Water Conference, 1942	821	Quick and flash freezing of foods	

FRICTION Bearings for Diesel engines	439	Grinding Scrap Grinding and slag dumps	458	Honorary members	63
Intermittently loaded sleeve bearings Surface finish of journals	667 718	GRODZINSKI, PAUL Kinematics and mechanisms (D)		Honored by Stevens	504 504
FRITZLEN, T. L. Manufacture and processing of aluminum	220	GROUP DELEGATES CONFERENCE	502	Honored by Tulane. Honors and Awards for 1942. Hoover Medal awarded	919
FRY, LAWFORD H.	558	GUTHRIE, S. WILSON		tion	200
Progress in railway mechanical engineer- ing (D)	313	Domestic stoker for bituminous coal Guy, H. L.	599	Industrial Progress Award program John Fritz Medal awarded	328 822 163
Coal follows through	771 807	Secretary of The Institution of Mechanical Engineers	425	Lamme Medal (A.I.E.E.) awarded Lawrence Sperry award presented	328 250
The great waste (C)	001			Management Fellowships at M.I.T	58
Coal. Coal pulverized by steam guns (A)	483			Percy Nicholls Award, first	504 816
Domestic stoker for bituminous coal Natural gas in U. S. A.	599 369	Н		Pi Tau Sigma Medal Prizes are doubled in compressed-air idea	58
Tobacco curing	555			contest Southwestern group student-prize winners	504 412
FUNK, WILLIAM F. Receives Fifty-Year Medal	568	HALOGEN PROCESS		Undergraduate Student Award	59
FURNACES. See Boiler Furnaces.		Tin plating	488	Walter Kidde Award	$\frac{161}{320}$
		HAMMOND, H. P.	141	Watt International Medal I.M.E. awarded	633
		Outlook for adult education	662	Worcester Reed Warner Medal Hoopes, P. R.	58
G		X-Ray diffraction, card index issued	244	It's about time (BR)	150 743
9		HANLEY, WILLIAM A. (P)	52 5	HOPTON, W. E.	
GAGES		HARD SURFACING Chrome-hardening cylinders (D)	395	Fifty-year member	58
Oil tank gages	357	HARTLEY, A. L.		Collection of wage data	294
Garand, John C. Awarded Holley Medal	61	Practical application of flame hardening. HAYDEN, O. M.	531	HOTCHKISS, WILLIAM O. Army Specialist Corps	613
GARAND RIFLE Mechanical engineer in war	337	Synthetic rubber	109	Houdry Process. See Synthetic Rubber.	
Garrison R. M.		HEAT CALCULATIONS Bibliography	272	Hovland, C. I. Subordinate personnel (D)	396
Converting the small plant to war pro- duction	477	HEAT TRANSFER Comparison of power-plant heater ar-		Howe, Clarence Decatur Honorary member	68
Gas Analysis Research program of the Institute of Gas		rangements	784	HUND, W. J.	
Technology	802	Elements of heat-transfer and insulation (BR)	811	Some aspects of industrial lubrication Hunsaker, J. C.	525
Gas Fuel Gas generators for motorcars (A)	134	New heat-transfer research tool (Ed) Unit for heat-transfer rates 118,(D)	95 557	Presented with the Franklin Medal	423
Natural gas in U. S. A	369	HEATING Oil-burner bibliography	740	Hydraulic Turbines Horsepower of hydraulic-turbine wheels.	612
GAS MAINS. See Pipe Lines. GAS PRODUCERS		HEAT-TREATMENT Hot-quenching of high-speed steel	201	Hydraulics Conference	408
Gas generators for motorcars (A)	134	Manufacture and processing of aluminum	558	Stepanoff awarded first prize by Hydraulic Institute	423
Supercharging of two-stroke Diesel en- gines.	779	and its alloys	119	Institute	420
Gases		Practical application of flame hardening. HECHT, MAX	531		
Temperature-entropy diagram of air Thermodynamic properties of air	$\frac{272}{270}$	Ions, parts per million, and equivalents per million, report on	742	I	
GASKETS Materials and contact facings, Boiler Code		HECK, ROBERT C. H.	472	-	
table	146	Thermodynamics of deep refrigeration HELANDER, LINN		Incendiary Bombs	617
GEARS Tin-free gear bronze (A)	905	Operating responsibilities (D) HELIUM II	233	Magnesium fires	617
GERHART, R. V. Thermodynamic properties of air	270	Low-temperature physics (A)	224	ment, Labor Problems. Dynamics of industrial democracy (BR).	741
GIBSON, GEO. H.		Hempel, E. H. Industry's search for industrial markets.	212	Labor's attitude on technological change (BR)	803
Deficit spending and national income (C) GIESECKE, F. E.	145	HERSHEY, LEWIS B. Take an inventory now!	756	INDUSTRIAL TRAINING. See also Education, Engineering, Science, and Management	
Honored by A.S.H.&V.E	242	HERTY, CHARLES H., JR.		Defense Training.	056
OILBERT, W. W. Drilling deep holes in magnesium alloys.	877	Importance of alloy-scrap segregation HETENYI, M.	452	Co-operative education Education for defense	659
GILBRETH, LILLIAN M. Women in engineering	856	Proceedings of Photoelasticity Conference (BR)	810	Educational and training program at G.E. Guide to industrial training material	217 764
GILG, F. X. Spreader stokers for marine boilers (D)	808	HIGH-SPEED STEEL. See Metal-Cutting Materials.		Metal-cutting film (A)	489
GILMER, G. WALKER, 3RD		HILL, L. CLAYTON		Welding instruction films (A)	394
Receives Undergraduate Student Award. GOFF. JOHN A.	59	Let us develop wage indices realistically. HISTORY	293	Effect of floor conditions on	588
Appointed to Standing Committee on Pro- fessional Divisions	504	Australia's war effort (A)	309	Democracy and collectivism (BR)	
Goldsmith, C. S.		Planning will win the peace	97	Education and industry INFLATION	654
Emergency repair of gas mains	863	HOLDEN, PAUL E. Receives Gantt Medal	8. 60	Background of inflation	481
Conserve manpower (C)	680	HONORS AND AWARDS		INSPECTION. See Product Inspection. INSTITUTE OF THE AERONAUTICAL SCIENCES	
Government Civics for engineering students (Ed)	95	A. A. Potter AwardAlfred Noble Prize	161 166	Hibbard heads I.A.S	165
Free enterprise and world politics Planning will win the peace	215 97	A.S.M.E. certificates of honor awarded to student members	823	Institute of Gas Technology Research program	802
Planning will win the peace	909	A.S.M.E. Medal	840 821	INSTITUTE OF HYDRAULIC RESEARCH OF UNIVERSITY OF IOWA	
GOVERNMENT ENGINEERS Only five engineers in Congress	430	Bessemer Medal awarded	156 59	Second Hydraulics Conference	408
Grace, Alonzo G. Vocational education and the war	664	Collier aviation trophy awarded	156	Institution of Mechanical Engineers A.S.M.E. members extended courtesies	320
GRACE, EUGENE G.		awarded	633 156	New officers Instruments—Measuring	423
Awarded Bessemer Gold Medal	156	Fifty-Year A.S.M.E. Medals	568 507	Electronic micrometer (A)	22-
Air conditioning (BR)	563 153	Fifty-year members	425	INSTRUMENTS—VISCOSITY Ball-and-bucket viscometer (A)	22
Mark's handbook (BR)	402	Gantt Medal Group IV student prize winners (P) Group X student prize winners	58 419	Insulation	
GREGORY, WILLIAM K.	205	Group X student prize winners	419	Specifications available for mineral wool	42

INTER-AMERICAN DEVELOPMENT COM-	407	LABOR PROBLEMS (continued) Better wage indices for metalworking		Machine Tools Alex Dow and the shell-turning machine.	41
Invention Education and industry	654 20	Dynamics of industrial democracy (BR). Labor's attitude on technological change	291 741	Broaching of rifling in cannon	11 31 32
INVESTMENT Problem of investment in 1942	221	(BR)	805 352 909	Mass production for the aircraft-engine industry	31 13
IRON AND STEEL. See also Metal-Cutting Materials. Design-strengthened materials	554	Labor Unions Seniority clauses in labor contracts	233	Witter shell-forging process	12
National-emergency steels IRWIN, K. M.	560	LACEY, W. N. Thermodynamic properties of air	270	(BR)	80
Vice-president A.S.M.E	243	Landgraf, John Dynamics of industrial democracy (BR).	741	MacQuigo, C. E. Past and future education of engineers	65
180LATORS. Dec 71DIACON MOUNTINGS.		Larsen, R. G. Some aspects of industrial lubrication		Magnesium alloys bibliography	30
I		Lassiat, R. C. Houdry Process for the manufacture of		Manufacturing processes (A)	39
, , , ,		LATTIN, JUDSON	777	tions. Benefits of material standardisation	54
Jacobus, D. S. Testimonial dinner to64,	153	Fifty-year member	58	Conversion (Ed) Dynamics of industrial democracy (BR).	25 62
Jarman, G. W., Jr. Grinding and slag dumps	458	Education needed (Ed) Our war—our peace	516 517	Extension of the art of management (Ed) Forum on aviation management	58 47
JENEINS, FRANCIS G. Benefits of material standardization	545	The world we want		Handling chips	48
JEWETT, E. C. Photographic templates		Houdry Process for the manufacture of butadiene.	777	(BR)	80
JEWETT, FRANK B. Science in the defense program	13	LENNIE, A. M.		tions of salvage programs Outline available on administrative man-	46
JIGGING		Drilling deep holes in magnesium alloys LENT, L. B.		agement	32 56
Grinding and slag dumps Johnson, T. C.		Invention for defenseLIBRARIES. See Engineering Societies Li-	20	Plant efficiency	52 36
Educational and training program at G.E. Jones, Bassett	217	brary. Lincoln Arc Welding Foundation		Shop management for the shop supervisor (BR)	31
Modern elevator practice (D) JURAN, J. M.	619	Industrial Progress Award program Lincoln, J. F.	328	Summer management course at Iowa Workers in management (A)	32 48
Dynamics of industrial democracy (BR). Manufacturing processes (BR)	623 497	More output per man (C)	622	Manpower Canada at War	86
Production engineering (BR)	401	Lindquist, D. L. Modern elevator practice (D)	620	Conservation of brain power (Ed) Manpower (Ed)	43 33
		Mass production for the aircraft-engine	214	Take an inventory now!	75
K		industry	314	Design for air supremacy	47
		Low-temperature physics (A) Thermodynamics of deep refrigeration	223 473	Manufacture and processing of aluminum and its alloys106, (D)	55
KAPITZA, P. L. Low-temperature physics (A) Science and war (A)	223 483	LITSCHER, E. C. The time obstacle	806	Mass production for the aircraft-engine industry	31
KARR, MILTON		Loberg, Harry J. Industry's search for industrial markets		ployed in producing crossbar switches for automatic dial telephone system	46
Marine boilers (D)	680	(D) Local Sections	212	MARKETING Industrial marketing and national defense	01
Appointed to Wisconsin State Board of Architects and Engineers	75	Group conferences	75	Industry's search for industrial markets	21
KEETH, J. A. Operating responsibilities (D)	233	Coal-handling systems (D) Mechanical engineers in the transporta-	230	Marks, L. S. Delivers Sigra Xi lectures Unit for heat-transfer rates118, (D)	42 55
Kellogg, David R. Redesign, substitution, simplification, and		tion emergency	$\frac{35}{230}$	MARSH, T. A.	90
standardization	30	Turbine locomotives (A) LOEWY, ERWIN	228	Spreader stokers for marine boilers (D) MATERIALS	80
Vibration and rubber springs 175, (D) Kibbee, A. S.	808	Modern shell forging (D)	314	Essentials and substitutes (A) MATERIALS HANDLING	39
Shop problems in manufacture of naval equipment (A)	571	Logistics—the problem of delivering the goods.	384	Modern manufacturing methods em- ployed in producing crossbar switches	
Killough, D. T. Mechanical harvesting of cotton		Loughborough, W. Karl Urea treatment of lumber (D)		for automatic dial telephone system MATERIALS STANDARDIZATION	46
KINEMATICS		LOUX, JOHN H.		Benefits of materials standardization MATERIALS TESTING	54
Bibliography. What is wrong with "kinematics" and "mechanisms?"	744	Witter shell-forging process LOWTHER, J. G.		Physical properties of laminated plastics. MATHEMATICS	88
KIRKPATRICK, S. D. Personal aspect of the industrial scrap-		Intermittently loaded sleeve bearings LUBRICANTS		Mathematics Dictionary (BR)	81
salvage program	462	Reclaiming and using scrap materials Some aspects of industrial lubrication	$\begin{array}{c} 25 \\ 525 \end{array}$	Watts Bar Power Station (D)	31
KLEMIN, ALEXANDER Forum on aviation management	479	LUBRICATION Bearings for Diesel engines	445	McCarthy, Robert Hughes Hot-quenching of high-speed steel	20
KLINE, GORDON M. Advances in rubber and plastics during	905	Grease and Oil Guide available	259 426	McClelland, Edw. S. Fifty-year member58,	7
1941 KNICKERBACKER, JOHN	295	Some aspects of industrial lubrication Lumber. See Wood.	525	McDonnell, A. C. Shop problems of aircraft manufacture	
Fifty-year member	58 83	LYTLE, C. W. Shop management for the shop supervisor		McEwan, T. S.	
KNICKERBOCKER, IRVING Industry also means people (BR)	38	(BR)	317	Manager of A.S.M.E	5
KOTZEBUE, M. H. Oil-Field Tank Batteries (D)	680			Mechanical engineer in war	33
KREISINGER, HENRY Principal function of pulverized-coal		3.5		Advanced instruction and research in me- chanics at Brown University	32
burners	365	M		Bibliography	27
_		Machine-Shop Practice		What is wrong with "kinematics" and "mechanisms?"	74
L		Broaching of rifling in sannon	113 480	MEHARG, LAURENCE Modern elevator practice (D)	
LABOR-MANAGEMENT COMMITTEES Workers in management (A)	485	Handling chips. Manufacturing processes (BR)	497 560	MEHLHOUSE, H. G.	
LABOR PROBLEMS. See also Industrial Re- lations.	100	Shop management for the shop supervisor (BR) Torque tube-flanges (A)	317 138	Crossbar switch as a typical unit of auto- matic dial telephone system	34

Mehlhouse, H. G. (continued) ployed in producing crossbar switches for automatic dial telephone system	463	N		ORDNANCE. See also Munitions. Broaching of rifling in cannon	113
Member's Page An appeal to members of the Society	757	NAME-PLATE RATING. See Rating of Apparatus.		Mechanical engineer in war	140 337 314
METALS. See Aluminum, Babbitt, Steel Industrial uses for silver (A) Metals salvaged from ashes	226 743	NATIONAL ACADEMY OF SCIENCES Science in the defense program	13	New semiautomatic carbine (A) Ordnance in my time Physical properties of brass cartridge	139 43 5
METAL CUTTING		NATIONAL ADVISORY COMMITTEE FOR AERO- NAUTICS		Quality-control procedures in ordnance	119
Development of standards for army ord- nance finishes		N.A.C.A. annual report (A)	227 14	inspection Shell-forging contract Witter shell-forging process	673 502 123
Metal-cutting film (A)	489	NATIONAL BROADCASTING COMPANY To broadcast program on "The Engineer		ORGANIZATION FORWARD TO PROPERTY OF THE PROPER	470
METAL-CUTTING MATERIALS Exhibit high-speed tool steels Hot-quenching of high-speed steel	688 201	at War"	638	Forum on aviation management. Problems of management (BR) Owsley, Wm. D.	479 522
METAL ROLLING Design-strengthened materials Witter shell-forging process	554 123	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	14	Pumps for oil-well cementing (A) Oxygen Aviation physiology (A)	388 386
METAL TESTING.		Large Air Circuit Breaker Standards, new edition	81	Waste-elimination poster for welding and cutting industry	472
Cold-rolled stainless steels in aircraft Load relations in bolted joints		Turbine Generator Recommended Prac- tices published	81		
Correction	688	NATIONAL INDUSTRIAL ADVERTISERS AS-	0.		
Seizure—surface finish of journals	718	SOCIATION Guide to industrial training material	764	P	
METALLOGRAPHY Bibliography	717 560	NATIONAL INVENTORS' COUNCIL Invention for defense	20		
METALLURGY	140	NATIONAL PATENT PLANNING COMMISSION Data on American Patent System desired	819	Paper Salvage of fibers, papers, and rags	460
Electrolytic polishing cell (A)	140 201	NATIONAL RESEARCH COUNCIL	010	PARK, L. L.	
Manufacture and processing of aluminum and its alloys106, (D)	558	Handbook of Scientific and Technical Societies and Institutions of the United		Women in shops	
Physical properties of alloys used as bear-	443	States and Canada	574	PARKER, JAMES W. (P)	53 583
Physical properties of brass cartridge cases.	119	Science in the defense program National Roster of Scientific and Specialized Personnel	13	Our war—our peace	504 517
MICHELL, A. G. M. Receives Watt International Medal	633	Collecting data on men of draft age National Roster (A)	243 228	Paschkis, Victor New heat-transfer research tool (Ed)	95
Mickley, H. S.	000	Wartime requirements for specialized per-		PATENTS	
Thermodynamic properties of air Micrometers	270	NATURAL GAS	166	Booklet published Data on American Patent System desired Patent legislation (C)	135 819 910
Electronic micrometer (A)	224	Natural gas in U. S. A	369	Реск, С. В.	
MIDWEST POWER CONFERENCE Chicago meeting243,	320	Whither industry in democracy's arsenal Nelson, H. R.	. 7	Vice-President A.S.M.E	56
MILITARY AVIATION Airplanes fit to fight	847	Surface finish of journals	718	The world we want (C)	909
MILLER, FRED L. B.	612	Vibration and rubber springs (D)	808	Pendulum Cars Pendulum cars in service (A)	392
MILLIGAN, L. H.		Newcomen Society of England Common interests (Ed)	258	PERRY, THOMAS D. Wood technology (BR)	
Surface finish of journals	718	Niscardi, John E. Nature of thermodynamics (BR)	235	PERSONNEL	
Specifications available for mineral wool in low-temperature installations	425	Nonferrous scrap in war production	453	National Roeter (A)	228 401 396
MITCHELL, HUMPHREY Canada at war	860	Nonferrous Metals and Alloys Drilling deep holes in magnesium alloys	877	Peters, C. A. Modern elevator practice (D)	-
Models Plastic models in war training (A) Some features of the Harbor Steam Plant	484	Norris, R. Hosmer Receives Pi Tau Sigma Medal	59	PETROLEUM STORAGE	021
of the Los Angeles Bureau of Power	773	NORTHWESTERN UNIVERSITY		Design of oil-field tank batteries for con- servation	355
MONEYMAKER, CARL, JR.	113	New building of the Technological Insti- tute	574	PHOTOCOPYING ON TEMPLATES	787
Death of	424	NORTON, MARY R. Development of standards for army ord-		Photoelasticity Proceedings of Photoelasticity Conference	
Morgan, G. E. Watts Bar Power Station (D)	313	nance finishes	703	(BR)	810
Morgan, Paul B. Fifty-year member	58			Photographs Covers (Ed)	695
Morton, R. W.	90	0		PHOTOGRAPHY.	
Biography	636	O		Boiler furnace performance	322
Moss, Sanford A. Presented the 1940 Collier aviation		OID		in analyzing crossbar-switch operations Method of obtaining shadowgraph of vi-	
trophy	156	O'BANNON, LESTER S. White Burley tobacco	557	Begroducing drawings (A)	350 787
Motion Picture Camera Optical-compensator type	350	OEDERLIN, F. Supercharging of two-stroke Diesel en-		Physics	
Motor Vehicles Braking distances on various road sur-		gines Office of Scientific Research and De-	779	High pressures (A) Low-temperature physics (A)	$\frac{312}{223}$
faces at 20 mph	227	VELOPMENT		Рісотт, R. J. S.	
Gas generators for motorcars (A) Torque-tube flanges (A)	134 138	Science in the defense program One. See Lubricants.	14	Bearings and lubrication Testimonial dinner to	259 75
MOULTROP, IRVING E. Receives New England award	504	OIL AND GAS POWER Cost and performance data on stationary		PIPE LINES Emergency repair of gas mains	863
MUHLENBRUCH, C. W.		and automotive Diesel engines availa- ble	81	Natural gas in U. S. A	369
Automatic autographic wear-measuring device	289 558	Design of internal-combustion engine power plants	541	Piston Rings Chrome-hardening cylinders (D)	395
Munitions	556	OIL BURNERS. See also Burners.	740	PLANNING A glance at education (Ed)	645
Alex Dow and the shell-turning machine. Designing for defense	414	Bibliography		America must decide	5
Whither industry in democracy's arsenal.	7	OIL-COAL MIXTURES. See Colloidal Fuel.	638	A.S.M.E. is ready (Ed)	584
Murray, W. M.	911	OIL FUEL	057	More preparedness (Ed)	516 97
Mathematics dictionary (BR) MYERS, ROBERT	811	Meeting wartime fuel problems OIL HEATING	697	Prelude to planning (Ed)	696
Collection of wage data	294	Twenty years' progress	731	bility	10

PLANNING (continued) The world we want	909 664 3	Pulverized Coal. See also Colloidal Fuel. Better utilization of coal Coal pulverized by steam guns (A) Meeting wartime fuel problems	301 483 697	RIFLES. See Ordnance. ROBINSON, EDWARD P. Fifty-year member	5
PLASTICS Abstract service started	426	Principal function of pulverized-coal burners	365	Honorary member	6
1941. Bibliography	$\frac{295}{299}$	Coal pulverized by steam guns (A)	483	Rockwood, George I. Fifty-year member	5
Physical properties of laminated plastics. Plastic models in war training (A)	484	Pumps for oil-well cementing (A) Purcell, T. E.	388	Rogers, Harry S. Engineering courses	20
Urea treatment of lumber181, (D) PLYWOOD	678	Biography	636	ROPER, ELMO Industry's search for industrial markets.	21
Bibliography	299			Rosa, Robert V. Background of inflation	48
Free enterprise and world politics Poor, W. B.	215	Q		Rowse, William C. Some features of the Harbor Steam Plant	
Natural gas in U. S. A POPIEL, ROMAN	369	QUALITY CONTROL		of the Los Angeles Bureau of Power and Light	77
An engineer in public affairs	161	Quality control with sampling inspection	678	Rubber Advance in rubber and plastics during	
POSTWAR PLANNING. See Planning. POTTER, A. A.	00	QUENEAU, A. L. Heads Engineering Foundation	920	1941 Bibliography	295 29
Education for defense	23 819			Electrically conductive compound Proper use of rubber products Scrap-rubber salvage	376 486 459
POWDER METALLURGY Industrial uses for silver (A)	226	R		Vibration and rubber springs 175, RUHEMANN, M.	80
Power Hydroelectric power in Canada (A)	229	RACKHAM FOUNDATION		Low-temperature physics (A) Russell, H. W.	22
Meeting power demand during war Nonessential uses to be curtailed	872	Edsel B. Ford elected president	629	Intermittently loaded sleeve bearings	663
Watts Bar Power Station (D)	313	Photographs	174 416	RUTTENBERG, HAROLD J. Wage indices	293
Power Plants Internal-combustion engine power-plant	541	Radio Range Requirements	382		
design	232 669	Rags Salvage of fibers, papers, and rags	460	C	
POWER PLANTS-STEAM. See also Feedwater Heaters.		RAILROAD CARS Mechanical engineers in the transporta-	35	S	
Coal-handling systems (D)	$\frac{230}{872}$	Pendulum cars in service (A)	392	SACKETT, R. L.	
Some features of the Harbor Steam Plant of the Los Angeles Bureau of Power		RAILROAD MECHANICAL ENGINEERING Progress in railway mechanical engineer-		Career in engineering (BR) Philosophy of engineering education	156
and Light	$\frac{773}{313}$	ing (D)231, RAILBOADS	313	Your career in engineering (BR)	624
POWER TEST CODES A.S.M.E. Power Test Code for hydraulic turbines, supplement	425	Mechanical engineers in the transporta- tion emergency	33	Accidents hinder production (Ed) Devices—Modern elevator practice	173 193
1941 A.S.M.E. Test Code for steam tur- bines.	687	Rail expansion joint (A)	308	SAFETY ENGINEERING Braking distances on various road surfaces	
Approvals Preliminary draft of instruments and ap-	407	Parting of Apparatus Dual rating of apparatus (A)	173	at 20 mph	227 309
paratus section on resistance thermome- ters completed	628	RAY, ARTHUR B. Recovery or salvage of chemical solvents.	454	SAFFORD, H. F. Broaching of rifling in cannon	113
Pratt, R. S. Physical properties of brass cartridge	***	REBER, LOUIS E. Fifty-year member	58	Sage, B. H. Thermodynamic properties of air	
PRESSURE	119	RECLAMATION. See Conservation.		SALESMEN	211
High pressures (A) PRICE REGULATION	312	REFRIGERATION Bibliography	653 647	Industrial marketing and national defense SALVAGE. See also Conservation, Scrap	213
Background of inflation PRINTING MACHINES—DRAWINGS	481	Theromodynamics of deep refrigeration	473	Collection of vital scrap materials Engineering aspects of industrial scrap	687
Reproducing drawings (A)	135	Reid, W. T. Spreader stokers for marine boilers (D)	809	salvage (Symposium)	449 457
Photographic templates	787	REIMOLD, MARY L. What can be done to train women for		Gilding metal-clad steel scrap (A) Metals salvaged from ashes Recovery or salvage of chemical solvents.	904 743
PRIZES. See Honors and Awards. PRODUCT INSPECTION	***	jobs in engineering (A)	853	Salvage begins at home (Ed)	$\frac{454}{257}$
Industrial statistics (BR)	613 673	Fifty-year member	58	Sampling. See also Product Inspection. Engineer's manual of statistical methods	
inspection	678	search Committee. Allocating A.S.M.E. research projects	321	Devices for oil tanks.	$\frac{496}{357}$
PRODUCTION British view of production (Ed)	646	Caustic embrittlement research brings re- sults	891	SCHMIDT, RAY Management and economic considerations	
Converting the small plant to war pro-		Industrial marketing in a defense econ- omy	211	of salvage programs	460
duction	518	Industrial uses for silver (A)	226 212	Chrome-hardening cylinders (D) Schranz, F. G.	395
ployed in producing crossbar switches for automatic dial telephone system	463	N.A.C.A. annual report (A) New heat-transfer research tool (Ed) Science and war (A)	227 95 483	Modern shell forging (D)	314
Preparedness (Ed)	515	Science in the defense program Scientific production (A)	13 907	Schroeder, C. S. Industrial trucks	588
Industrial statistics (BR)	613 402	Shell-forging contract	502	Schroeder, W. C. Use of mixtures of oil and coal in boiler	793
Production control (BR) PRODUCTION ENGINEERING	751	Receives Junior Award	59	SCIENCE	
Production for Victory Conference (BR)	426	RHEOTRON 20,000,000-volt electrons (A)	307	Science and war (A)	483
PRODUCTIVITY War output to 2000 per cent (A)	312	RICE, ROBERT B. Secretary N. C. Society of Engineers	425	mation of Materials, Salvage. Conservation and salvage (A)	134
PROSSER, JOSEPH G. Fifty-year member	58	RICH, G. R. Watts Bar Power Station (D)	313	Get in the scrap. Handling chips. Iron reclaimed from nonferrous scrap (P)	486 480
Рвусноводу		RICHARDSON, MARION B. (LIEUT, COL.)		Iron reclaimed from nonferrous scrap (P)	135
Philosophy of engineering education Subordinate personnel (D) War output to 2000 per cent (A)	340 396 312	Aims and objects of the A.S.M.E. (D) And son, photo Censorship (C)	232 638 910	SCRAP METAL. See Conservation, Salvage.	718
Public Service		RIFFLE DIVIDER		SEIZURE OF METALS	
Toledo Section did it (Ed)	845	For pulverized-coal ducts	366	Tribute to Alex Dow	413

Shapiro, A. H. Comparison of power-plant heater arrangements.	784	STATISTICAL METHODS (continued) Industrial statistics (BR)	613	TELEPHONE APPARATUS Crossbar switch as a typical unit of automatic dial telephone system	343
SHELL FORGING	502	Aircraft steel bibliography	597	TEMPLATES	
A.S.M.E. contract. Witter shell-forging process SHELL TURNING LATHE	123	Bibliography	$\frac{204}{201}$	Photographic templates	787
Alex Dow and the shell-turning machine. Shipbuilding		Alloy-steel situation (A)	905 589	Technology in our economy (BR) Tennessee Valley Authority	352
10-day launch (Ed)	769	STEEL INDUSTRY True steel (BR)	316	Watts Bar Power Station (D)	
Marine boilers for	680 549	STEPANOFF, A. J. Paper wins hydraulic prize	425	TERRY, ROGER V.	
SHOEMAKER, G. T. Biography	636	STEVENSON, A. R., JR. Biography	637	Receives Melville Medal Testing. See Acoustics.	58
Sigma XI Lecturers for 1943.		Educational and training program at G.E. STILLMAN, T. B.		THAYER, C. H. Houdry process for the manufacture of	
SILBBEE, NATHANIEL F.		Marine boilers	680	butadiene	777
Airplanes fit to fight		STOCK, A. J. Coal-handling systems (D)	231	Nature of thermodynamics (BR) Thermodynamics of deep refrigeration	235 473
Industrial uses for silver (A)226, Simon, Arthur	262	STODOLA, AUREL Honorary member	59	Thermodynamic properties of air Thomson, T. Kennard	270
Patent legislation (C)	910	STOKERS Domestic stoker for bituminous coal	599	Carnegie's part Thorson, A. W.	232
Grinding and slag dumps	458	Recent developments in spreader-stoker firing.	867	Spreader stokers for marine boilers (D)	809
Mechanical harvesting of cotton	604	Spreader stokers applied to marine boilers STRAIN GAGE	549	THRUST BEARINGS Bearings and lubrication	259
SNELLING, HENRY H. Aims and objectives of The American Society of Mechanical Engineers	373	Illustration	907	Time and Motion Study Method of obtaining shadowgraph of vi- brating relay springs	350
Snowflake Replicas Snowflakes and metallography	560	Stresses	****	TIN PLATING	
SOCIAL RELATIONS	300	Cold-rolled stainless steels in aircraft STUMP, WELDON F.	589	Halogen process	
Engineer and citizenship during the pres- ent emergency	828 35	The engineer and citizenship during the present emergency	825	Tobacco	588
Time obstacle		Stuntz, Ross M., Jr. Design of oil-field tank batteries for con-		Curing, bibliography	$\frac{192}{555}$
Social Security and the economy	132	servation	680	Tobey, Julian E. Heads Coal Bureau	425
Sociedad Cubana de Ingenieros Greetings from	243	Converting the small plant to war produc- tion.	477	Tools Steel. See Metal-Cutting Materials.	
SOCIETY FOR THE PROMOTION OF ENGINEER- ING EDUCATION	629	Substitution. See also Conservation and Reclamation.		Conservation plan	244 201
Annual meeting	023	Management and economic considerations of salvage programs	461	TORSIONAL VIBRATION Rotating pendulum detuners (A)	138
Professional development and responsi- bility	10	Supercharging of two-stroke Diesel en-	+	TRANSPORTATION Capacity of air-carrier terminals	377
Lead-silver solders to conserve tin	226	gines Surdy, C. J.		Mechanical engineers in the transporta- tion emergency	35
Recovery or salvage of chemical solvents.	454	Surface Finish (BR)	809 562	TRUCKS Industrial—effect of floor conditions on.	588
Solvents Reclaiming and using scrap materials	25	Bibliography	726	Truck maintenance	488
Somervell, Brehon B. How engineers can speed victory	518	nance finishes	703 695	Introduction to the problems of conversion (A)	569
Sound, See Acoustics.		Surface finish of journals Surface Hardening	718	Tucker, Donald S. Reinvestment of corporate earnings (BR)	
Soundproofing. See Acoustics. Southwell, Richard Vynne		Flame-hardening turret rings for the me- dium tank (P)	339	Reinvestment of corporate carnings (BR)	999
Awarded Worcester Reed Warner Medal. Springs. See also Vibration Mountings.	58	Practical application of flame hardening.	531		
Contact-spring design Determination of effective length of leaf	346	SURFACE-ROUGHNESS. See Surface Finish. Swope, Gerard	000	\mathbf{U}	
springs175,	347 808	Receives Hoover Medal	$\frac{822}{921}$	Ullman, Roland G. E.	
STANDARDIZATION Bibliography Management and economic considera-	554	New standard symbols for hydraulics and	001	Industry's search for industrial markets (D)	212
Management and economic considera- tions of salvage programs Procedure of A.S.M.E. committee on	461	mechanics approved	321	Underground aircraft factories (A)	
STANDARDS	409	Bibliography Synthetic Rubber	299	UNEMPLOYMENT Technology in our economy (BR)	352
Benefits of material standardization Development of standards for army ord-	545	Bibliography	299	United Engineering Trustees, Inc.	
nance finishes. Dual rating of apparatus (A)	$\frac{703}{137}$	use of	109	Annual report for 1940-1941	82
Emergency A.S.A. standards to be developed for W.P.B. and O.P.A	688	butadiene	777	Natural gas in U. S. A U. S. Conciliation Service	369
per million. Large Air Circuit Breaker Standards, new	742			Job evaluation	294
edition. New aircraft-engine standards available.	81 80	Т		Naval aviation volunteer service wants engineers.	426
New list of American Standards for 1942. New standard symbols for hydraulics and	424	•		U.S.S.R. Low-temperature physics (A)	223
New welding standards	321 638	TALIAFERRO, R. R. White Burley tobacco (D)	556	Russian technical publications to be listed Science and war (A).	328 483
Oil-burner standard issuedPublication of 1942 list of American	426	TANKS. See also Munitions.	300	University of Notre Dame	249
Standards announced Standard specifications approved	921 502	Design of oil-field tank batteries for con- servation	680	Air compressors in M.E. laboratory (P)	240
Surface finish (BR) Turbine Generator Recommended Prac-	562	TATE, C. D. Photographic templates	787		
tices published. Wage indexes. War production board emergency specifi-	81 291	TAYLOR, WALTER C. Collection of wage data	294	V	
cations. Static Electricity	903	TEBO, J. D.	-01	VAGTBORG, HAROLD	
New rubber safety equipment	376	Crossbar switch as a typical unit of auto- matic dial telephone system	343	Research program of the Institute of Gas Technology	802
STATISTICAL METHODS Engineer's manual of statistical methods (BR)	496	Modern manufacturing methods em- ployed in producing crossbar switches for automatic dial telephone system	463	VALVES For oil tanks	
(450	for automatic dial telephone system	#100	A U.S. U.S. VERSENCE	

VAN DER HORST, H. Chrome-hardening cylinders (D)	395	WAR PRODUCTION Clinics	434	WINTERROWD, W. H. In appreciation (Ed)	4
Verity, George M. True steel (BR)	316	Converting the small plant to war produc- tion	477	WIRE ROPE Modern elevator practice	100
VESPER, HAROLD G.		Engineer's job in war production	517		
	525	Meetings planned	502	WITTER SHELL-FORGING PROCESS	123
Some aspects of industrial lubrication	323	Ordnance Finishes Standards	703	WOHLENBERT, W. J.	
VIBRATION		Pittsburgh meeting	505	Biography	020
Rotating pendulum detuners (A)	138	Quality Control Procedures in Ordnance			030
Vibration and rubber springs 175,	808	Inspection	673	Wood	
VIBRATION MOUNTINGS			0.0	Urea treatment of lumber 181, (D)	678
Advances in rubber and plastics during		WAR PRODUCTION BOARD		Wood technology (BR)	316
1041 905	808	Emergency Specifications (A)	903	WOOD BENDING	
Felt mountings for machines (A)	307	Idle machine tools are requested	321	Bends with impregnated wood	190
Feit mountings for machines (A)	307	Organization and operations of the Bureau			100
Vibration and rubber springs	175	of Industrial Conservation, War Pro-		WOOD, J. F.	
VISCOMETERS		duction Board	449	Spreader stokers for marine boilers (D)	809
Ball-and-bucket viscometer (A)	225	Recommendations leading to the maxi-		WOMEN IN INDUSTRY	
		mum conservation and economical use		What can be done to train women for jobs	
VOCATIONAL EDUCATION. See Education.		of critical materials in the electric motor		in engineering (A)	853
VOCATIONAL-GUIDANCE		and control industry	820	Women in engineering	
Booklet on engineering	328			Women in shops	858
Career in engineering (BR)	150	WAR-PRODUCTION CONFERENCE			000
Engineering as a career (Ed)	257	W.P.B. urges engineers to exchange ideas		WOOLRICH, W. R.	
Guidance of young engineers (Ed)	173	and experience	569	Quick and flash freezing of foods	647
Manual for committees of engineers inter-	110	WASHINGTON, GEORGE		Quick and flash freezing of foods	56
ested in engineering education and the		Was Washington an engineer?	130	WORK STANDARDIZATION. See Labor Prob-	
ested in engineering education and the	755	was washington an engineer	100	lems, Wage Indexes.	
engineering profession		WATCHES			
Selection and guidance (Ed)	770	It's about time (BR)	150	WRIGHT, ROY V.	
Your career in engineering (BR)	624			Biographical sketch	161
VON KÁRMÁN, THEODOR		WATER ANALYSIS		WYER, RAMON	
Receives A.S.M.E. Medal	58	Ions, parts per million, and equivalents		The world we want	909
		per million	742	The mental me maner. The contract of the contr	0.00
		WATER TREATMENT			
		Bibliography	743		
				37	
****		WAY, STEWART		X	
W		Surface finish (BR)	562		
**		WEAR		X-RAY DIFFRACTION	
		Bearings for Diesel engines	439	Card index for use in chemical analysis.	044
WADSWORTH, GEORGE P.				Card index for use in chemical analysis.	
		Chrome-hardening cylinders (D)	395		
	019	Chrome-hardening cylinders (D)	395	X RAYS	
Industrial statistics (BR)	613	WEAR-MEASURING DEVICES	395	X RAYS 20,000,000-Volt electrons (A)	
Industrial statistics (BR)	613	WEAR-MEASURING DEVICES Automatic autographic wear-measuring			
Industrial statistics (BR)		WEAR-MEASURING DEVICES Automatic autographic wear-measuring	395 289		
Industrial statistics (BR)	613 291	Wear-Measuring Devices Automatic autographic wear-measuring device			
Industrial statistics (BR)	291	WEAR-MEASURING DEVICES Automatic autographic wear-measuring device WELDING	289		
Industrial statistics (BR)		WEAR-MEASURING DEVICES Automatic autographic wear-measuring device WELDING Heliarc welding (A)	289 901		
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting.	291	WEAR-MEASURING DEVICES Automatic autographic wear-measuring device WELDING Heliarc welding (A) Larger welding rod (A)	289		
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants Work Standardization session of Annual Meeting WALKER, J. H.	291	Wear-Measuring Devices Automatic autographic wear-measuring device Welding Heliarc welding (A). Larger welding rod (A) Photograph of high-temperature electric	289 901 309	20,000,000-Volt electrons (A)	
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants Work Standardization session of Annual Meeting WALKER, J. H. Caustic embrittlement research brings re-	291 291	Wear-Measuring Devices Automatic autographic wear-measuring device Welding Heliarc welding (A). Larger welding rod (A) Photograph of high-temperature electric	289 901 309 204	20,000,000-Volt electrons (A)	307
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results.	291 291	WEAR-MEASURING DEVICES Automatic autographic wear-measuring device WELDING Heliarc welding (A) Larger welding rod (A)	289 901 309	YARNALL, D. ROBERT Awarded Hoover Medal59,	
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L.	291 291	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon	289 901 309 204	YARNALL, D. ROBERT Awarded Hoover Medal	307
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results.	291 291 891	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon	289 901 309 204 394	YARNALL, D. ROBERT Awarded Hoover Medal	307
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L.	291 291	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member	289 901 309 204	YARNALL, D. ROBERT Awarded Hoover Medal	307
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods	291 291 891	Wear-Measuring Devices Automatic autographic wear-measuring device Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P)	289 901 309 204 394	YARNALL, D. ROBERT Awarded Hoover Medal	307
Industrial statistics (BR). Wage Indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT	291 291 891 384	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary A.S.M.E. (P). Honorary member	289 901 309 204 394 432 65	YARNALL, D. ROBERT Awarded Hoover Medal	307
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods WAR EFFORT Canada at war.	291 291 891 384 860	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394	YARNALL, D. ROBERT Awarded Hoover Medal	307
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting.	291 291 891 384 860 410	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary A.S.M.E. (P) Honorary member Ordnance in my time. White, A. E.	289 901 309 204 394 432 65 435	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting Manpower (Ed).	291 291 891 384 860 410 335	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33
Industrial statistics (BR). Wage Indexes Better wage indexes for metalworking plants Work Standardization session of Annual Meeting. Walker, J. H. Caustic embrittlement research brings results Walsh, James L. Logistics—the problem of delivering the goods War Effort Canada at war. Houston meeting. Manpower (Ed). Mechanical engineer in war.	291 291 891 384 860 410 335 337	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435	YARNALL, D. ROBERT AWArded Hoover Medal	307 60 295 33
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods WAR EFFORT Canada at war. Houston meeting Manpower (Ed). Meehanical engineer in war. Men and machines.	291 291 891 384 860 410 335 337 584	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33
Industrial statistics (BR). Wage Indexes Better wage indexes for metalworking plants Work Standardization session of Annual Meeting. Walker, J. H. Caustic embrittlement research brings re- sults Walsh, James L. Logistics—the problem of delivering the goods War Erfort Canada at war. Houston meeting. Manpower (Ed) Mechanical engineer in war. Men and machines. Preparedness (Ed)	291 291 891 384 860 410 335 337	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435	YARNALL, D. ROBERT AWArded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods WAR EFFORT Canada at war. Houston meeting. Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting	291 291 891 384 860 410 335 337 584 515	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco.	291 291 891 384 860 410 335 337 584 515	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). Wage INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting. Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A).	291 291 891 384 860 410 335 337 584 515 572 483	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A). Larger welding rod (A). Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P). Honorary member	289 901 309 204 394 432 65 435 637 413	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco.	291 291 891 384 860 410 335 337 584 515 572 483	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P). Honorary member	289 901 309 204 394 432 65 435 637 413 215	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). Wage INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting. Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A).	291 291 891 384 860 410 335 337 584 515 572 483	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A). Larger welding rod (A). Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P). Honorary member	289 901 309 204 394 432 65 435 637 413 215	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). Wage Indexes Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. Walker, J. H. Caustic embrittlement research brings re- sults. Walsh, James L. Logistics—the problem of delivering the goods War Erfort Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting.	291 291 891 384 860 410 335 337 584 515 572 483 505	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A). Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings re- sults. WALSH, JAMES L. Logistics—the problem of delivering the goods WAR EFFORT Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting. WARFARE Aviation physiology (A).	291 291 891 384 860 410 335 337 584 515 572 483 505 386	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary A.S.M.E. (P) Honorary member Ordnance in my time. White, A. E. Biography Valediction to Alex Dow. WHITE, WALTER Free enterprise and world politics. WHITEHEAD, JOHN BOSWELL AWARDED HONEY Receives John Fritz Medal WHITNEY, WILLIS RODNEY Receives John Fritz Medal WILKINSON, F. L., Jr.	289 901 309 204 394 432 65 435 637 413 215 156 822	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746
Industrial statistics (BR). Wage Indexes Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. Walker, J. H. Caustic embrittlement research brings re- sults. Walsh, James L. Logistics—the problem of delivering the goods. War Effort Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting. Warfare Aviation physiology (A). Conservation of brain power (Ed).	291 291 891 384 860 410 335 337 584 515 572 483 505	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215 156 822	Y YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746 242
Industrial statistics (BR). Wage Indexes Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. Walker, J. H. Caustic embrittlement research brings re- sults. Walsh, James L. Logistics—the problem of delivering the goods. War Effort Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting. Warfare Aviation physiology (A). Conservation of brain power (Ed).	291 291 891 384 860 410 335 337 584 515 572 483 505 386 434 470	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215 156 822 141	YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746 242
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting. WARPARE Aviation physiology (A). Conservation of brain power (Ed). Design for air supremacy. The engineer at war (radio programs).	291 291 891 384 860 410 335 337 584 515 572 483 505	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215 156 822 141	Y YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746 242
Industrial statistics (BR). Wage INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. Walker, J. H. Caustic embrittlement research brings re- sults. Walsh, James L. Logistics—the problem of delivering the goods. War Effort Canada at war. Houston meeting. Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting. Warfare Aviation physiology (A). Conservation of brain power (Ed). Design for air supremacy. The engineer at war (radio programs). Logistics—the problem of delivering the	291 291 891 384 860 410 335 337 584 515 572 483 505 386 434 4470 686	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215 156 822 141	Y YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746 242
Industrial statistics (BR). WAGE INDEXES Better wage indexes for metalworking plants. Work Standardization session of Annual Meeting. WALKER, J. H. Caustic embrittlement research brings results. WALSH, JAMES L. Logistics—the problem of delivering the goods. WAR EFFORT Canada at war. Houston meeting Manpower (Ed). Mechanical engineer in war. Men and machines. Preparedness (Ed). Salvage and Waste Elimination Meeting at San Francisco. Science and war (A). War technology meeting. WARPARE Aviation physiology (A). Conservation of brain power (Ed). Design for air supremacy. The engineer at war (radio programs).	291 291 891 384 860 410 335 337 584 515 572 483 505 386 434 4470 686	Wear-Measuring Devices Automatic autographic wear-measuring device. Welding Heliarc welding (A) Larger welding rod (A) Photograph of high-temperature electric arc. Welding instruction films (A) Wesson, Charles Macon General Wesson, honorary member A.S.M.E. (P) Honorary member	289 901 309 204 394 432 65 435 637 413 215 156 822 141 439	Y YARNALL, D. ROBERT Awarded Hoover Medal	307 60 295 33 746 242

Index to A.S.M.E. Transactions

Volume 64, 1942

The A.S.M.E. Transactions for 1942 was issued monthly. Four of the twelve issues are the Journal of Applied Mechanics, the page numbers of which are preceded by the letter A.

The Society Records for the year 1942 appeared as supplements, one in February, 1942, the Memorial Biographies in October, 1942, and the index section in January, 1943. The page numbers for these supplements are designated by the symbol RI, and the February supplement contains its own index. (BR) denotes book review; (D) discussion of a paper.

Adams, Edward Thomas. ObituaryRI-57	
Progress in methods of edge-gluing lumber and veneers	7
AEROPYNAMICS Effect of variable viscosity on boundary layers, with a discussion of drag measurements	1
FRONAUTICS	
Wind-tunnel tests to establish stack height for Riverside Generating Sta-	
tion	1
Air-heater facts: 1926-1941	9
Ice prevention by air-lift system at Grand Coulee	1
Air Pressure Piston effect of trains in tunnels	7
ALFORD, LEON PRATT. Obituary	7
Advanced design—original features em- bodied in new 160,000-kw Oswego Steam Station (D)	1
Corrosion by high-temperature steam 30	
Heat-resisting alloys	8
fineries as still tubes and other parts 11	
AMERICAN SOCIETY OF MECHANICAL ENGI-	, I
Biographies	3
How to find papers presented at 1942	
A.S.M.E. meetings	
Index to Society records	0
Memorial Biographies. RI-5 Publications of technical committees. RI-8 Society records (Officers, committees, representatives on other activities,	
representatives on other activities, professional divisions, local sections,	1
student branches, Woman's Auxiliary,	1
honorary members, past presidents). See Index	
Angus, R. W.	1
Comparative characteristics of fixed- and adjustable-blade axial-flow pumps (D). 60	
Test characteristics of a combined pump- turbine model with wicket gates (D) 73 APPLEBAUM, S. B.	
Experimental study, feedwater treatment	1
for 1400-lb boiler operating pressure (D)	3
Applied Mechanics. See also Mechanics. von Kármán anniversary volume (BR)A-5	3
ARNOLD, C. B. Study of damper characteristics (D) 14	3
Arnow, S. M. Advanced design—original features em- bodied in new 160,000-kw Oswego	1
steam station (D)	
ARTSAY, N. Method of estimating the circulation in steam-boiler-furnace circuits (D) 28	32
ATOMIZERS. See also Burners	
AUTOMATIC CONTROL Advanced design—original features embodied in new 160,000-kw Oswego Steam Station	
Steam Station 54	
Combustion of four fuels in one boiler Experimental studies of automatic con-	35
Optimum settings for automatic con-	.,
trollers 70 Problems in water-steam cycle of central steam-generating and decentralized	59
steam-generating and decentralized control systems, Parkchester	35

56

Issue	PAGE Numbers
_	
January	1- 64
February	65-160
April	161-256
May	257-392
July	393-528
August .	529-624
October .	625-720
November	721-816
Journal of Ap	plied Mechanics
March	A- 54
June	A- 55-A-102
September	A-103-A-150
December	A-151-A-198
December	A-131-A-198

В	
BAIRD, DUDLEY. ObituaryR	1-58
Baker, H. D. Method for determining unsteady-state heat transfer by means of an electrical analogy	105
BAKER, J. R. Advanced design—original features em- bodied in new 160,000-kw Oswego	
Steam Station (D) Burning pulverized anthracite in steam power plants (D)	554 261
BAKRADZE, JOHN JOSEPH. Obituary H	
BALANCING. See Vibration.	
BALDWIN, OSCAR HOWARD. Obituary R	I-59
BARDWELL, R. C. Experience with intercrystalline cracking	100
on railroads	403
BARNES, HAROLD BUTLER. Obituary H	
BARNES, WILLIAM OLIVER. Obituary F	
Baron, F. M. Torsion of multiconnected thin-walled cylinders.	A-72
BAUSCH, FREDERICK EMIL. Obituary F	RI-59
BAYLES, A. L. Design of Diesel-engine foundations (D)	
BEALL, A. L. Heat conditions in bearings (D)	450
BEAMS Distribution of stress in built-in beams of narrow rectangular cross section	-108
Bearings. See also Journal Bearings, Lubrication. Characteristics of centrally supported	
journal bearings Effect of diametral clearance on the load	711
capacity of a journal bearing Effects of surface finish on journal bearing	457
performance (D)	A-43 445
Heat conditions in bearings Heat dissipation in self-contained bear- ings.	463
Bender, R. J. Application of the Girbotol process to	
industry (D)	301
Flow of a flashing mixture of water and steam through pipes.	657
BERGMAN, D. J. Turbines for power from industrial-process gases (D)	296
	200
RI-95	

Summary of papers composing the sym-	
Summary of papers composing the symposium on embrittlement	427
Closure to discussion on	444
BERRY, C. H. Energy transfer between a fluid and a rotor for pump and turbine machinery	
(D)	586
Betty, B. B. Relaxation resistance of nickel-alloy	
springs	465
BETZ, L. D. Silica removal by improved magnesia	
process (D)	58
Symposium on embrittlement (D) Bier, P. J.	434
Ice prevention by air-lift system at	906
Grand Coulee (D)	206
Studies on the cracking of boiler plate	409
BLISS, PHILIP E. ObituaryR	1-59
BLOOMBERG, D. J. Energy transfer between a fluid and a	
rotor for pump and turbine machinery	588
BLOWERS. See also Compressors.	500
Advanced design—original features em- bodied in new 160,000-kw Oswego	
steam station	541
BOELTER, L. M. K.	
High-performance fins for heat transfer	495
(D)	
furnace coils (D)	192
Boiler Code Interpretations	622
Boiler Corrosion	022
Embrittlement of boiler steel—experiences with the Schroeder detector	207
Experience with intercrystalline cracking	397
on railroads Field data from the embrittlement de-	403
Results of laboratory embrittlement test	417
	393
Summary of papers composing the sym-	409
posium on embrittlement Symposium on embrittlement (D)	427 431
Boiler Embrittlement. See also Boiler	401
Corrosion, Feedwater Treatment.	40*
Bibliography	425
Method of estimating the circulation in	071
steam-boiler-furnace circuits Operating experiences with high-pressure high-temperature unit at Des Moines	275
high-temperature unit at Des Moines Some problems in pulverizing and burning	155
Some problems in pulverizing and burning Midwest coals	169
Boiler Operation Experimental study, feedwater treatment	
for 1400-lb boiler operating pressure	121
Operating experiences with high-pressure high-temperature unit at Des Moines.	155
Boiler Tests	
Combustion of four fuels in one boiler Embrittlement of boiler steel—experiences	65
with the Schroeder detector Experience with intercrystalline cracking	397
on railroads. Experimental study, feedwater treatment	403
for 1400-lb boiler operating pressure	127
Boiler Tubes	
Experimental study, feedwater treat- ment for 1400-lb boiler operating pres-	
sure	129
Burning pulverized anthracite in steam	
power plants.	257 65
power plants. Combustion of four fuels in one boiler Experimental boiler for 1400-lb pressure. Method of estimating the circulation in	125
Method of estimating the circulation in steam-boiler-furnace circuits	275

Bolling, O. Progress in methods of edge-gluing lumber and veneers	BURNERS Combustion of four fuels in one boiler 65 BURNETT, C. S.	COLUMBIA BASIN RECLAMATION PROJECT Ice prevention by air-lift system at Grand Coulee
Bonds Some dynamic properties of rubberA-129	Automatic burning control in rotary kilns (D)	Columns
Bonneville Project Structural-steel tolerances	Burwell, J. T. Effect of diametral clearance on the load capacity of a journal bearing	Long continuous columns. A-18 Torsional and flexural buckling of bars of thin-walled open section under com- pressive and bending loads. A-10
Book Reviews Carbon dioxide	Effects of surface finish on journal bearing	COMBUSTION
Design of high-pressure plant and the properties of fluids at high pressureA-102 Dynamics of straight railroad trackA-149	performance (D)	Automatic burning control in rotary kilns. 26 Calculations—Study of damper characteristics
Elastic energy theory A-149		Combustion of four fuels in one boiler 6 Combustion of pulverized fuel—mecha-
Hydraulics of steady flow in open chan- nels	C	nism and rate of combustion of low-den- sity fractions of certain bituminous coals 49
Materials testing	Caldwell, W. E. Hydraulic-engineering problems at	Control
Mechanics applied to vibrations and	Southwark Generating Station (D) 540	Some problems in pulverizing and burn-
balancing A-50 Nature of thermodynamics A-198 Replacement A-198	Measurement of latent heat by gas-cur-	ing Midwest coals
Practical solution of torsional vibration	rent method	Compressors
Principles of mechanics	Energy transfer between a fluid and a rotor for pump and turbine machinery	Energy transfer between a fluid and a rotor for pump and turbine machinery. 56
Properties of ordinary water-substance. A-197 Relaxation methods in engineering	(D)	CONCELIN, G. W. Combustion of four fuels in one boiler
science	Air-heater facts: 1926-1941 (D) 225	(D)
Strength of materials	CAMPBELL, R. D. Design of Diesel-engine foundations (D). 348	Condensation of saturated Freon-12 vapor
Thermodynamics	Internal-combustion-engine casualty experience (D)	on a bank of horizontal tubes
India Railway	Operation of supercharged engines in pipe-line service (D)	CONRAD, WILLIAM LAWSON. Obituary RI-6
Boston, O. W. Correlation of coefficient of friction with	Application of the Girbotol process to	Coogan, C. H. Some two-dimensional aspects of the
drilling torque and thrust for different types of cutting fluids	industry	ejector problemA-15 Cook, D. D.
BOTTOMLEY, W. T. Flow of a flashing mixture of water and	CARMICHAEL, D. C.	Operation of supercharged engines in pipe- line service (D)
steam through pipes (D)	Experimental study, feedwater treatment for 1400-lb boiler operating pressure 121	COPLEN, H. L. Study of damper characteristics
BOUNDARY LAYER Bibliography	Cassidy, Perry Mercury-vapor process (D)	CORDINER, J. B., JR.
layers	CAST IRON. See Iron Castings.	Burning pulverized anthracite in steam power plants (D)
BOYER, G. C. Design of Diesel-engine foundations (D). 349	CATHODIC PROTECTION. See Corrosion— Underground.	Corrosion. See also Steam Corrosion. Air-heater facts: 1926-1941
Brainerd, J. G.	CAUSTIC EMBRITTLEMENT. See Boiler Corrosion, Feedwater Treatment.	Application of cathodic protection for cor- rosion prevention
Effect of variable viscosity on boundary layers, with a discussion of drag meas-	Cavitation Bibliography	Stability characteristics of turbine oils
urements A-1 Bristol, E. S.	Developments in regulating outlet valves. 85 Mechanism of cavitation erosion	Steels and alloys developed for use at ele- vated temperatures in petroleum re-
Optimum settings for automatic controllers (D)	Test stand for centrifugal and propeller	fineries as still tubes and other parts 110 Underground—Protecting buried metals against corrosion
BROOKS, F. A. Performance of flat-plate solar-heat col-	CEMENT INDUSTRY	Coulson, B. P., Jr. Mercury-vapor process (D)
lectors (D)	Automatic burning control in rotary kilns 265 CHATEL, FRED JOSEPH. Obituary	Couplings
Instrumentation for developing and test- ing Diesel engines	CHIMNEYS Wind-tunnel tests to establish stack height for Riverside Generating Sta-	Advanced design—original features em- bodied in new 160,000-kw Oswego Steam Station
Brown, R. W. Modern passenger-car ride character- istics (D)	tion 671	Transient torques in induction-motor drives (D)
istics (D)	CHRISTIE, A. G. Automatic burning control in rotary kilns	Cox CHART Method of determining pressure drop for
Energy transfer between a fluid and a rotor for pump and turbine machinery	Flow of a flashing mixture of water and	oil-vapor mixtures flowing through furnace coils
(D) 588	steam through pipes (D)	COYKENDALL, L. Combustion of four fuels in one boiler (D). 75
BRUCKNER, R. E. An extension of the sand-heap analogy in	volatile coals (D)	CRAIN, L. D. Obituary RI-6
plastic torsion applicable to cross sec- tions having one or more holes (D)A-146	Corrosion of unstressed steel specimens and various alloys by high-tempera-	CRANKSHAFTS Short-gage-length extensometer and its
BRYANT, C. B. Symposium on embrittlement (D) 434	ture steam (D)	application to the study of crankshaft stresses
BUCKLER, ALBERT (Hammond). Obituary. RI-60	Depreciation estimates in appraisals of manufacturing equipment (D) 513	Report on tubular creep tests 769
Buckling BibliographyA-13, A-107, A-117, A-174	CLIFFORD, ERNEST LOWELL. Obituary RI-61	CROCKER, SABIN Advanced design—original features em-
Buckling of bars under compressive and bending loads	CLOUDSLEY, DAVID BANKS. ObituaryRI-61 COAL. See also Pulverized Coal.	bodied in new 160,000-kw Oswego Steam Station (D)
Buckling of rectangular plates with built- in edges	Bibliography	CROPT, H. O. Radiation configuration factors using
Buckling of semimonocoque structures under compression	steam-drying subbituminous coal and lignite	light in furnace models 691 Crossy, H. S.
Buckling of the circular plate beyond the critical thrust	Some problems in pulverizing and burning Midwest coals	Internal-combustion-engine casualty ex-
Long continuous columns	COAL PULVERIZERS. See Pulverizers. Code	CROSS. HARDY
thin-walled open section under com- pressive and bending loads	Spring design	Relaxation methods in engineering science (BR)
Buckwalter, T. V. Modern steam passenger locomotives—	Cohesive Strength Technical cohesive strength of metals (D)	Crossan, T. E. Silica removal by improved magnesia
research and design (D)	Colbert, A. R. Depreciation estimates in appraisals of	Cushing, H. M.
Depreciation estimates in appraisals of manufacturing equipment (D)	manufacturing equipment (D) 514	Advanced design—original features em- bodied in new 160,000-kw Oswego
BURDSALL, ELLWOOD. ObituaryRI-60	COLE, E. C. Internal-combustion-engine casualty ex-	Steam Station 541 CUTTING FLUIDS
Burgwin, S. L. Eddy-current method of flaw detection in	perience (D)	Correlation of coefficient of friction with drilling torque and thrust for different
nonmagnetic metals (D) A-44	Symposium on embrittlement (D) 435	types of cutting fluids 703

A-189 A-103

-96

-61

-15 '69

4 1

)3

Cyclones Separation of liquid from vapor, using cyclones	Drills Correlation of coefficient of friction with drilling torque and thrust for different	Engine Foundations Design of Diesel engine foundations Engine Indicators	341
Cylinders Buckling of semimonocoque structures	types of cutting fluids	Instrumentation for developing and test-	351
under compression	Field tests on induction-motor drives	Engine Vibration. See Foundations, Vibration. Engines—Internal-Combustion. See also	
	DRUCKER, D. C.	Engines—Oil. Theoretical consideration of power loss	
D	Photoelastic analysis of transverse bend- ing of plates in the standard trans-	caused by combustion knock Engines—Oil	317
D	mission polariscope	Casualty experience (D)	$\frac{363}{341}$
Daily, J. W.	Preparation of stable nonslacking fuel by steam-drying subbituminous coal and	Instrumentation for developing and test- ing Diesel engines	351
Test characteristics of a combined pump- turbine model with wicket gates (D) 739	lignite	Operation of supercharged engines in pipe- line service.	323
Dampers Study of damper characteristics	Dudley, W. M. Analysis of longitudinal motions in trains of several cars (D)	Pre-exhaust-gas-pressure measurements for indicating Diesel-engine perform- ance	331
Damping. See Vibration. Dams, See Power Plants—Hydroelectric.	Durelli, Augusto J.	England, Fred Radiation configuration factors using	
DAUGHERTY, R. L.	Experimental determination of the iso- static lines	light in furnace models	691
Piston effect of trains in tunnels	DUSINBERRE, G. M. Flow of a flashing mixture of water and steam through pipes (D)	Engle, M. D. Advanced design—original features em- bodied in new 166,000-kw Oswego Steam Station (D)	559
Davis, E. L. Transient torques in induction-motor	Dynamics Dynamics of staight railroad track (BR)A-149	Ennis, W. D.	000
drives (D)	Note on angular motions of ships (D)A-100 Self-excited oscillations in dynamical sys-	Depreciation estimates in appraisals of manufacturing equipment (D)	515
Brittle coatings for quantitative strain measurements	tems possessing retarded actions A-65 Dynamometers	Correlation of coefficient of friction with	
Degler, H. E. Pre-exhaust-gas-pressure measurements	Correlation of coefficient of friction with drilling torque and thrust for different	drilling torque and thrust for different types of cutting fluids (D)	707
for indicating Diesel-engine perform- ance (D)	types of cutting fluids 703	Enosion. See also Cavitation. Bibliography	-194
DEICING SYSTEMS—DAMS	_	Flow of a flashing mixture of water and steam through pipes	657
Ice prevention by air-lift system at Grand Coulee	E	Advanced design—original features em-	
DeJuhasz, K. J. Graphical analysis of impact of elastic	EINERT, H. E.	bodied in new 160,000-kw Oswego Steam Station (D)	554
bars	Embrittlement of boiler steel—experi- ences with the Schroeder detector (D). 432 Ejectors. See also Pumps—Jet.	Exline, W. Design of Diesel-engine foundations (D). Extensometers	349
ance (D)	Bibliography	Short-gage-length extensometer and its application to the study of crankshaft	
Advanced design—original features em- bodied in new 160,000-kw Oswego Steam Station (D)	ejector problem	stresses	A-15
Dennison, E. S. Graphical solution of fluid-friction prob- lems	Exsergian, R. Energy transfer between a fluid and a rotor for pump and turbine machinery	F	
Depreciation Estimates of equipment	(D)	FAIRCHILD, F. P. Advanced design—original features em-	
Design Machine parts (BR)	Graphical analysis of impact of elastic bars	bodied in new 160,000-kw Oswego Steam Station (D)	557
Design Data	Solution of problems of elasticity by the framework method (D)	Fans. See Blowers. FEEDWATER HEATERS AND HEATING	
Expansion of formulas for calculating loads, rotation, and deflections of quarter bends and tangents of pipes A-38	Strength of materials (BR) A-51	Steam-turbine regenerative cycle—an analytical approach.	231
DIAMETER-CLEARANCE RATIO. See Bear-	Electric Motors Field tests on induction-motor drivesA-180 Investigation of self-excited torsional os-	FEEDWATER TREATMENT	
DICKEY, P. S.	cillations and vibration damper for in- duction-motor drives	Bibliography Experience with intercrystalline cracking on railroads	403
Study of damper characteristics	Transient torques in induction-motor drives (D)	Experimental study, feedwater treatment for 1400-lb boiler operating pressure	121
DITTUS, F. W.	ELLIS, GREER Brittle coatings for quantitative strain	Field data from the embrittlement de- tector	417
Method of determining pressure drop for oil-vapor mixtures flowing through furnace coils	measurements	Results of laboratory embrittlement test- ing of boiler waters	393
DOMESTIC FURNACES	Chick Barger temperature and the		
Improved hand-fired furnace for high- volatile coals	application to the study of crankshaft stresses (D)	Silica removal by improved magnesia process	49
	stresses (D)	Studies on the cracking of boiler plate Summary of papers composing the sym-	409
Dondero, J. A. Problems in water-steam cycle of central	stresses (D)	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D)	
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D)	process. Studies on the cracking of boiler plate Summary of papers composing the symposium on embrittlement Symposium on embrittlement (D) Fellows, J. R. Improved hand-fired furnace for high-	409 427 431
Dondero, J. A. Problems in water-steam cycle of central steam-generating and decentralized	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion, Feedwater Treatment, Iron and Steel.	process. Studies on the cracking of boiler plate Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D) Fellows, J. R.	409 427 431 161
Dondero, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). EMBRITTLEMENT. See also Boiler Corrosion, Feedwater Treatment, Iron and Steel. Bibliography	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D) FELLOWS, J. R. Improved hand-fired furnace for high-volatile coals. FELTON, EDGAR CONWAY. Obituary	409 427 431 161
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D)	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D). FELLOWS, J. R. Improved hand-fired furnace for high-volatile coals. FELTON, EDGAR CONWAY. Obituary	409 427 431 161 RI-62
Dondero, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion. Feedwater Treatment, Iron and Steel. Bibliography	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D). FELLOWS, J. R. Improved hand-fired furnace for high-volatile coals. FELTON, EDGAR CONWAY. Obituary. FERNALD, H. B. Depreciation estimates in appraisals of manufacturing equipment (D). FIELD, FREDERICK CROMWELL. Obituary FINDLEY, W. N. High-speed tension tests at elevated tem-	409 427 431 161 RI-62 515 RI-63
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion, Feedwater Treatment, Iron and Steel. Bibliography. 402, 407, 425 Symposium on 397 EMBRITTLEMENT DETECTORS Embrittlement of boiler steel. 397 Field data from the embrittlement detector. 417	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D) FELLOWS, J. R. Improved hand-fired furnace for high- volatile coals. FELTON, EDGAR CONWAY. Obituary. FFERNALD, H. B. Depreciation estimates in appraisals of manufacturing equipment (D) FIELD, FREDERICK CROMWELL. Obituary F FINDLEY, W. N. High-speed tension tests at elevated tem- peratures—II and III (D).	409 427 431 161 RI-62 515 RI-63
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D)	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D). Fellows, J. R. Improved hand-fired furnace for high- volatile coals. Felton, Edgar Conway. Obituary. Fernald, H. B. Depreciation estimates in appraisals of manufacturing equipment (D). Field, Frederick Cromwell. Obituary F Findley, W. N. High-speed tension tests at elevated tem- peratures—II and III (D). Fins. See also Heat Transfer. Heat transfer, pressure drop, and fouling rates of liquids for continuous and non-	409 427 431 161 RI-62 515 RI-63 A-45
Dondero, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion. Feedwater Treatment, Iron and Steel. Bibliography. 402, 407, 425 Symposium on . 397 EMBRITTLEMENT DETECTORS Embrittlement of boiler steel. 397 Embrittlement of boiler steel. 417 Studies on the cracking of boiler plate 409 EMMET, W. LER. Mercury-vapor process (D). 644 EMMONS, H. W. Effect of variable viscosity on boundary layers, with a discussion of drag measurements. A-1	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D) FELLOWS, J. R. Improved hand-fired furnace for high- volatile coals. FELTON, EDGAR CONWAY. Obituary. FFERNALD, H. B. Depreciation estimates in appraisals of manufacturing equipment (D). FIELD, FREDERICK CROMWELL. Obituary F FINDLEY, W. N. High-speed tension tests at elevated tem- peratures—II and III (D). FINS. See also Heat Transfer. Heat transfer, pressure drop, and fouling	409 427 431 161 RI-62 515 RI-63 A-45
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion, Feedwater Treatment, Iron and Steel. Bibliography	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D). FELLOWS, J. R. Improved hand-fired furnace for high- volatile coals. FELTON, EDGAR CONWAY. Obituary. FERNALD, H. B. Depreciation estimates in appraisals of manufacturing equipment (D). FIELD, FREDERICK CROWVELL. Obituary F FINDLEY, W. N. High-speed tension tests at elevated tem- peratures—II and III (D). FINS. See also Heat Transfer. Heat transfer, pressure drop, and fouling rates of liquids for continuous and non- continuous longitudinal fins.	409 427 431 161 RI-62 515 RI-63 A-45
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion, Feedwater Treatment, Iron and Steel. Bibliography. 402, 407, 425 Symposium on. 397 EMBRITTLEMENT DETECTORS Embrittlement of boiler steel. 397 Field data from the embrittlement detector. 417 Studies on the cracking of boiler plate 409 EMMET, W. LER. Mercury-vapor process (D). 644 EMMONS, H. W. Effect of variable viscosity on boundary layers, with a discussion of drag measurements. A-1 Flow of a flashing mixture of water and	process. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D) Fellows, J. R. Improved hand-fired furnace for high- volatile coals. FELTON, EDGAR CONWAY. Obituary. FERNALD, H. B. Depreciation estimates in appraisals of manufacturing equipment (D). FIELD, FREDERICK CROMWELL. Obituary F FINDLEY, W. N. High-speed tension tests at elevated tem- peratures—II and III (D). FINS. See also Heat Transfer. Heat transfer, pressure drop, and fouling rates of liquids for continuous and non- continuous longitudinal fins. High-performance fins for heat transfer. FISCHER, E. G.	409 427 431 161 161 161 515 31-63 A-45 795 489
Donderso, J. A. Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester	stresses (D). A-191 ELY, F. G. Experimental study, feedwater treatment for 1400-lb boiler operating pressure (D). 135 EMBRITTLEMENT. See also Boiler Corrosion. Feedwater Treatment, Iron and Steel. Bibliography. 402, 407, 425 Symposium on . 397 EMBRITTLEMENT DETECTORS Embrittlement of boiler steel. 397 EMBRITTLEMENT DETECTORS Embrittlement of boiler steel 417 Studies on the cracking of boiler plate 409 EMMET, W. LER. Mercury-vapor process (D). 644 EMMONS, H. W. Effect of variable viscosity on boundary layers, with a discussion of drag measurements. A-1 Flow of a flashing mixture of water and steam through pipes (D). 666 ENERGY. See also Solar-Energy Conver-	Studies on the cracking of boiler plate. Studies on the cracking of boiler plate. Summary of papers composing the symposium on embrittlement. Symposium on embrittlement (D). Fellows, J. R. Improved hand-fired furnace for high- volatile coals. FELTON, EDGAR CONWAY. Obituary. FERNALD, H. B. Depreciation estimates in appraisals of manufacturing equipment (D). FIELD, FREDERICK CROMWELL. Obituary F FINDLEY, W. N. High-speed tension tests at elevated tem- peratures—II and III (D). FINS. See also Heat Transfer. Heat transfer, pressure drop, and fouling rates of liquids for continuous and non- continuous longitudinal fins. High-performance fins for heat transfer. FISCHER, E. G. Investigation of self-excited torsional oscillations and vibration damper for	409 427 431 161 RI-62 515 RI-63 A-45 795 489

FLEISSNER PROCESS Preparation of stable nonslacking fuel by steam-drying subbituminous coal and	G		HARRINGTON, L. C. Preparation of stable nonslacking fuel by steam-drying subbituminous coal and	
lignite	GADD, C. W.		Harris Courses Harry Obitages 19	
Effect of variable viscosity on boundary layers, with a discussion of drag meas-	Short-gage-length extensometer and its application to the study of crankshaft stresses		HARRIS, C. O. Some dynamic properties of rubberA-	
Energy transfer between a fluid and a rotor for pump and turbine machinery. 56	GAS CLEANERS		HARSHMAN, J. B. Operation of supercharged engines in pipe-	
Flow of a flashing mixture of water and steam through pipes	dustry	299		323
Heat transfer, pressure drop, and fouling rates of liquids for continuous, and non-	Gas and Oil Engines Casualty Experience		Mercury for the generation of light, heat	653
continuous longitudinal fins	GAS TURBINES		HAWKINS, G. A. Corrosion of unstressed steel specimens	000
nels (BR)	dustrial-process gases		and various alloys by high-temperature	202
Method of determining pressure drop for oil-vapor mixtures flowing through fur-	Bibliography	1	HEAT. See also Latent Heat, Mercury. Solar-Energy Conversion.	303
Piston effect of trains in tunnels			Analysis of a continuous process by a dis- continuous step method	753
friction factors for tubular heat ex-		721	Review of heat-transfer coefficients and friction factors for tubular heat ex-	
Simple air ejector	Advanced design—original features em-		changers	779
Steady flow in the transition length of a	bodied in new 160,000-kw Oswego		Bibliography	-25
straight tube. A-5 Study of damper characteristics	GILBERT, W. W.		rent method A	
benzene-oil mixtures	drilling torque and thrust for different		Heat TRANSFER Analysis of a continuous process by a dis-	359
Wind-tunnel tests to establish stack height for Riverside Generating Sta- tion	types of cutting fluids		continuous step method	753 785
FLUID FRICTION	ber and veneers	384	Condensation of saturated Freon-12 vapor	787
Bibliography	GOFF, J. A. Measurement of latent heat by gas-cur-		Heat conditions in bearings. Heat dissipation in self-contained bearings	445
Steam through pipes	rent method	A-21	Heat transfer, pressure drop, and fouling rates of liquids for continuous and non-	100
lems	ejector problem	A-151	continuous longitudinal fins	795 489
Piston effect of trains in tunnels	GOLDSBURY, JOHN		Method of determining pressure drop for oil-vapor mixtures flowing through	103
Energy transfer between a fluid and a rotor for pump and turbine machinery. 56	Turbines for power generation from in- dustrial-process gases	287	furnace coils	185
FOSTER, A. C. Some problems in pulverizing and burn-	Good, C. W. Theoretical consideration of power loss		heat transfer by means of an electrical	105
ing Midwest coals 16 FOUNDATIONS	GOODIER, J. N.		steam-boiler-furnace circuits	275
Design of Diesel-engine foundations 34 Effect of foundation stiffness on resonant	Torsional and nexural bucking of bars of		Performance of flat-plate solar-heat col- lectors	91
frequencies of rotating machines (D) A-4	thin-walled open section under com- pressive and bending loads		in furnace models	691
FRANK, D. S. Combustion of four fuels in one boiler	Governors Analyzing governor-system performance.	43	Review of heat-transfer coefficients and friction factors for tubular heat ex-	
(D)	Reclamation Project.		Vaporization inside horizontal tubes-II	779 193
pumping system	Grant, E. L. Depreciation estimates in appraisals of manufacturing equipment	509	HEATING Performance of flat-plate solar-heat col-	
Symposium on embrittlement (D) 43. Frick, C. H.	GRAPHICAL METHODS		Problems in water-steam cycle of central	91
Burning pulverized anthracite in steam power plants	Graphical analysis of impact of elastic bars	A-122		685
FRICTION. See also Flow of Fluids, Fluid	lems	A-82	Symposium on embrittlement (D)	436
Friction. Characteristics of centrally supported	Nomographic charts On some of the essentials of control-chart		HEIKEL, DANIEL AUGUST. Obituary RI	1-63
journal bearings	l analysis Greве, J. J.		HEINS, ALBERT E. von Karman anniversary volume (BR) A	-53
drilling torque and thrust for different types of cutting fluids	continuous step method (D)	758	HENCKY, H. Determining critical states of equilibrium	08
FRIEDRICHS, K. O. Buckling of the circular plate beyond the	Optimum settings for automatic con- trollers (D)	767	of plates and shells under initial stress. A HENDERSON, J. R.	-21
critical thrust	Grinsfelder, Henry Progress in methods of edge-gluing lumber and veneers (D)			287
trains of several cars (D)	GROFF, J. C.		HEROMAN, L. C., Jr. Vaporization inside horizontal tubes—II benzene-oil mixtures	193
peratures—II and III (D) A-46 Fuchs, H. O.	Pre-exhaust-gas-pressure measurements for indicating Diesel-engine perform- ance (D)		HERSEY, MAYO D.	
Modern passenger-car ride character- istics (D)	Gunn, Ross		HEYCK, T. R.	445
Note on angular motions of ships (D)A-196 FUEL-INJECTION	nonmagnetic metals (D)	A-44	Heat transfer, pressure drop, and fouling rates of liquids for continuous and non-	000
Hydraulic characteristics of fuel-injection nozzles	Gunn, T. M. Heat conditions in bearings (D)	450	continuous longitudinal fins (D)	802 [-63
Instrumentation for developing and test- ing Diesel engines	GUNTER, A. Y. Heat transfer, pressure drop, and fouling		HILDEBRAND, A.	
FUELS Bibliography—fuel preparation 18	rates of liquids for continuous and non-		Method of determining pressure drop for oil-vapor mixtures flowing through fur-	165
Combustion of four fuels in one boiler 63 Cost per 1000 lb of steam for various fuel	•		nace coils	150
Improved hand-fired furnace for high-	Ц		Distribution of stress in built-in beams of narrow rectangular cross section	108
Preparation of stable nonslacking fuel by				451
steam-drying subbituminous coal and lignite	HACKETT, H. N. Mercury for the generation of light, heat,	0.45	HIWASSEE PROJECT (T.V.A.) Francis-turbine installations of the Nor-	
FURNACES. See also Boiler Furnaces, Heat Transfer, Petroleum Refinery	Mercury-vapor process (D)	647 644	ris and Hiwassee projects	19
Furnaces. Improved hand-fired furnace for high-volatile coals	HALL, R. E. Field data from the embrittlement detector		Hobbs, J. C. Advanced design—original features em- bodied in new 160,000-kw Oswego Steam Station (D)	555

RI-63 -129

785

445 463

489

63

HOLLANDER, A. Some problems in the selection and opera-	Instruments—Vibration Instrumentation for developing and test-	Kemler, E. N. Calculation of critical speeds of oil-well
tion of centrifugal pumps for oil and gasoline pipe lines	ing Diesel engines	pumping system
Test characteristics of a combined pump- turbine model with wicket gates (D) 738	oscillations and vibration damper for induction-motor drives	Optimum settings for automatic controllers (D)
Hopping, E. L. Air-heater facts: 1926-1941	INTAKES—WATER Hydraulic-engineering problems at	Kerr, H. J.
Horger, O. J. Correlation of residual stresses in the	Southwark Generating Station	Mercury for the generation of light, heat, and power (D)
fatigue strength of axles A-85	gines—Oil.	Kerr, S. Logan Hydraulic-engineering problems at South-
Hornsby, G. J. Developments in regulating outlet valves. 85	IRON CASTINGS Heat-resisting cast irons	wark Generating Station
Hosford, Eugene Calculation of critical speed of oil-well	Iron and Steel Corrosion of unstressed steel specimens	KEYSER, P. V., JR.
pumping system (D)	and various alloys by high-tempera- ture steam	Turbines for power from industrial- process gases (D)
HOTTEL, H. C. Performance of flat-plate solar-heat collectors	Steels and alloys developed for use at ele- vated temperatures in petroleum re-	KEYSOR, H. C. Helical-spring tables—scope and ar-
Hovey, Bertram K. Dynamics of straight railroad track A-149	fineries as still tubes and other parts 113 Studies on the cracking of boiler plate 409	rangement 478 Kiefer, P. W.
HRENNIKOFF, A.	IRONS, ROBERT HATFIELD. ObituaryRI-64	Modern steam passenger locomotives— research and design
Solution of problems of elasticity by the framework method (D)		Kilby, H. S. Internal-combustion-engine casualty ex-
Hrones, J. A. Analysis of a continuous process by a dis-	J	perience (D)
continuous step method	Jackson, T. E. Pre-exhaust-gas pressure measurements	Automatic burning control in rotary kilns. 265
Effect of foundation stiffness on reso- nant frequencies of rotating ma-	for indicating Diesel-engine perform-	King, J. J. Protecting buried metals against cor-
chines (D)	JACOBBON, CARL A.	rosion (D) 807 Kipp, Leonard. Obituary RI-65
Humphreys, C. G. R. Method of estimating the circulation in	Pre-exhaust-gas pressure measurements for indicating Diesel-engine perform-	Kirsch, C. Russell. Obituary
steam-boiler-furnace circuits 275 HUNSAKER, J. C.	ance (D)	KLAFSTAD, E. Advanced design—original features em-
Mechanism of cavitation erosion (D) A-193	Condensation of saturated Freon-12 vapor on a bank of horizontal tubes (D) 792	bodied in new 160,000-kw Oswego Steam Station (D)
Hunter, J. B. Measurement of latent heat by gas-cur-	Jaski, F. E.	KNAPP, R. T.
rent method	Test characteristics of a combined pump- turbine model with wicket gates 731	Test characteristics of a combined pump- turbine model with wicket gates (D) 739
HUTCHINS, A. T. Advanced design—original features em-	JENKS, L. HOWARD. Obituary	KNOCK. See Engines—Internal-Combustion. KNOX, JAMES ROSS. Obitugry
bodied in new 160,000-kw Oswego Steam Station (D)	Jennings, B. H. Pre-exhaust-gas pressure measurements	Koth, Arthur
HUTCHISON, G. T. Flow of a flashing mixture of water and	for indicating Diesel-engine perform- ance	Preparation of stable nonslacking fuel by steam-drying subbituminous coal and
steam through pipes (D) 667	Jensen, V. P. Note on calculation of influence surfaces	lignite
Analyzing governor-system performance. 43	in plates by use of difference equations (D)	Combustion of pulverized fuel-mecha- nism and rate of combustion of low-
Bibliography 47, 737 Efficiency and model tests 19	Johnson, E. G. Studies on the cracking of boiler plate 409	density fractions of certain bituminous coals (D)
Francis-turbine installations of the Nor- ris and Hiwassee projects	JONES, FORREST ROBERT. Obituary RI-64	KRIEG, E. H.
Test characteristics of a combined pump- turbine model with wicket gates 731	Jones, H. S. Progress in methods of edge-gluing lum-	Advanced design—original features em- bodied in new 160,000-kw Oswego
Hydraulic Valves Developments in regulating outlet	ber and veneers (D)	Steam Station (D)
valves	Silica removal by improved magnesia process (D)	_
HYDRAULICS. See also Hydraulic Turbines, Pumps—Centrifugal.	JOURNAL BEARINGS	L
Hydraulic characteristics of fuel-in- jection nozzles	Bibliography	
Hydraulic-engineering problems at Southwark Generating Station	pacity of a journal bearing 457	Brittle coatings for quantitative strain
	***	measurements
	K	Heat conditions in bearings (D) 451 LANGER, B, F.
1	KARELITZ, G. B.	Track stress research Progress Report,
I Parameter C	Heat dissipation in self-contained bear- ings	India Railway (BR)
Ice-Prevention Systems Ice prevention by air-lift system at Grand	problems (BR)A-101	Steady flow in the transition length of a straight tube
Coulee	Kates, E. J. Design of Diesel-engine foundations (D). 349	Langsdorf, A. S. Improved hand-fired furnace for high-
Graphical analysis of impact of elastic bars	Field data from the embrittlement detector	volatile coals (D)
Industrial Furnaces Radiation configuration factors using	Internal-combustion-engine casualty ex- perience (D)	Larkin, Kenneth H. Design of Diesel-engine foundations 341
light in furnace models	Operation of supercharged engines in pipe-line service (D)	LATENT HEAT Measurement of latent heat by gas-cur-
INSPECTION. See Product Inspection. INSTRUMENTS	Pre-exhaust-gas pressure measurements for indicating Diesel-engine perform-	rent method
Experimental studies of automatic con- trol	ance (D)	Experience with intercrystalline crack- ing on railroads
Optimum settings for automatic con- trollers	Field data from the embrittlement de- tector	Closure to discussion on 442
Instruments—Photoelectric Radiation configuration factors using	Closure to discussion on	LEERBURGER, F. J. Depreciation estimates in appraisals of manufacturing equipment (D)
light in furnace models	KAYE, J. Effects of surface finish on journal bear-	Leib, E. F. Method of estimating the circulation in
Design of high-pressure plant and the properties of fluids at high pressure	ing performance (D)	steam-boiler-furnace circuits (D) 283
(BR). A-102 Instrumentation for developing and test-	KEENAN, JOSEPH H. Design of high-pressure plant and the	LENZ, EDWARD. Obituary RI-66 LEVY, SAMUEL
ing Diesel engines	properties of fluids at high pressure (BR)	Buckling of rectangular plates with built- in edges
Instruments—Temperature Instrumentation for developing and test-	(BR)	Lewis, C. R. Effects of surface finish on journal bear-
ing Diesel engines	Nature of thermodynamics (BR)	ing performance (D) A-43
Analyzing governor-system performance. 43	(BR) A-197 Simple air ejector A-75	Lewis, Richard Charles. Obituary RI-66 Lignite. See Fuels.

LISTER, ROBERT RAMSBOTTOM. Obituary RI-66 LOCOMOTIVE BOILERS Experience with intercrystalline crack-	McAdams, W. H. Vaporization inside horizontal tubes—II benzene-oil mixtures	MILLER, HARRY Analytical method for determining the flexibility of piping having two or more
ing on railroads	McClintock, Allan Patton. Obituary RI-67	anchorages
Welded construction (D)	McCormick, A. S.	MILLER, JOHN FISHER GARR. ObituaryRI-68
LOCOMOTIVES Modern steam passenger locomotives— research and design	Expansion of formulas for calculating loads, rotation, and deflections of quarter bends and tangents of pipes A-38	MILLER, J. G. Flow of a flashing mixture of water and steam through pipes
Performance and capacity tests 4	McGee, Frank Raymond. Obituary RI-67	Minorsky, Nicholas
Slipping tests	McHenry, Douglas	Note on angular motions of ships (D)A-100 Self-excited oscillations in dynamical sys-
LOUGHBOROUGH, W. K.	Solution of problems of elasticity by the framework method (D)	tems possessing retarded actions
Variation in shrinking and swelling of wood	McLaughlin, J. F.	
Lubricants	Operating experiences with high-pressure high-temperature unit at Des Moines. 155	MIXING SYSTEMS Ice prevention by air-lift system at Grand
Stability characteristics of turbine oils 227	MECHANICS	Coulee 201
LUBRICATION. See also Bearings. Bibliography	Calculation of critical speeds of oil-well	Models Francis-turbine installations of the
Effect of diametral clearance on the load	pumping system	Norris and Hiwassee projects
capacity of a journal bearing	balancing (BR)	Model tests of two types of vibration dampers
ing performance (D)	von Kármán anniversary volume (BR) A-53	dampersA-59 Radiation configuration factors using light in furnace models691
Lutz, W. J.	Melton, H. E. Mercury for the generation of light, heat	Wind-tunnel tests to establish stack
Combustion of four fuels in one boiler 65	and power (D)	height for Riverside Generating Sta- tion
	Mercury-vapor process (D) 644	Moir, H. L.
	Mercury Mercury for the generation of light, heat,	Correlation of coefficient of friction with drilling torque and thrust for different
M	and power 647	types of cutting fluids (D) 708
	MERCURY BOILERS. See Power Plants— Binary Vapor.	Moore, H. C., Jr.
MacGregor, C. W.	MERCURY TURBINES. See Power Plants-	Separation of liquid from vapor, using cyclones (D)
Equiareal pattern of stress trajectories in	Binary Vapor.	Morgan, D. A.
plane plastic strain (D)	MERCURY VAPOR PROCESS Power plants	Effects of surface finish on journal bearing performance (D)
peratures—II and III (D)	MERKEL, ARTHUR WILHELM. Obituary RI-67	MORTON, B. B.
MacGregor, Wallace Forrest	METAL COATING	Steels and alloys developed for use at ele- vated temperatures in petroleum re-
ObituaryRI-66	Protecting buried metals against corrosion	fineries as still tubes and other parts 113
Machine Design Mechanical properties of materials and	METAL CREEP	Moss, Sanford A. Energy transfer between a fluid and a
design (BR)	Report on tubular creep tests 769	rotor for pump and turbine machinery. 567
MACQUEEN, E. C.	METAL CUTTING Correlation of coefficient of friction with	MOTOR VEHICLES
Relaxation resistance of nickel-alloy springs	drilling torque and thrust for different types of cutting fluids	Modern passenger-car ride character- istics (D)
Madison, R. D.	METAL INCLUSIONS	Mousson, J. M.
Energy transfer between a fluid and a rotor for pump and turbine machinery	Two problems of thermal stress in the infinite solid	Mechanism of cavitation erosion (D) A-193 MOYER, STANLEY
(D) 591	METAL ROLLING	Hydraulic-engineering problems at South-
Maguire, J. J. Silica removal by improved magnesia	Foren mill for rolling seamless tubes achieves virtually continuous produc-	wark Generating Station 529 Mura, R. C.
process (D) 58	tion 745	Mercury-vapor process (D) 645
Maleev, V. L. Internal-combustion-engine casualty ex-	METAL TESTING High-speed tension tests at elevated tem-	Mumford, A. R.
perience (D) 370	peratures—II and III (D)	Corrosion of unstressed steel specimens and various alloys by high-temperature
Pre-exhaust-gas pressure measurements for indicating Diesel-engine perform-	application to the study of crankchaft	steam (D)
ance (D)	stresses	MURPHY, EUGENE Improved hand-fired furnace for high-
Manjoine, M. J. High-speed tension tests at elevated	elevated temperatures in petroleum	volatile coals (D)
temperatures—II and III (D) A-45	refineries as still tubes and other parts 113 METAL TESTING—CREEP	MURRAY, W. M.
MARCHANT, J. H. Energy transfer between a fluid and a	Report on tubular creep tests 769	Materials testing (BR) A-197 Photoelasticity (BR) A-54
rotor for pump and turbine machinery	Steels and alloys developed for use at ele- vated temperatures in petroleum re-	Muskat, M.
(D)	fineries as still tubes and other parts 113	Heat conditions in bearings (D) 452
Flow of a flashing mixture of water and	METAL TESTING—FATIGUE Correlation of residual stress in the	Myers, C. L. Study of damper characteristics (D) 152
steam through pipes (D)	fatigue strength of axles A-85	MYKLESTAD, N. O.
steam-boiler-furnace circuits 275	Metal Testing—High-Pressure Mechanism of cavitation erosion A-31,(D)A-193	Two problems of thermal stress in the infinite solid A-136
Marti, Charles. Obituary	METAL TESTING-RELAXATION	
High-performance fins for heat transfer	Relaxation resistance of nickel-alloy springs 465	
(D)	Steels and alloys developed for use at ele-	° N
Experimental determination of the iso-	vated temperatures in petroleum re- fineries as still tubes and other parts 116	. 14
static lines	METAL TESTING—SEIZURE	Nádal, A.
MATHEMATICS Note on calculation of influence surfaces	Correlation of coefficient of friction with drilling torque and thrust for	High-speed tension tests at elevated temperatures—II and III (D)
in plates by use of difference equations (D)	different types of cutting fluids 703	Relaxation resistance of nickel-alloy
Relaxation methods in engineering science	METAL TESTING—TEMPERATURE EFFECT Steels and alloys developed for use at ele-	springs (D)
(BR)	vated temperatures in petroleum re- fineries as still tubes and other parts 113	NEEDLE VALVES. See Hydraulic Valves.
MAWHINNEY, M. H.	METAL TESTING-TENSION	NEEDS, S. J. Heat conditions in bearings (D) 453
Method for determining unsteady-state heat transfer by means of an electrical	Brittle coatings for quantitative strain measurements	Neifert, H. R.
analogy (D)	Report on tubular creep tests 769	Correlation of residual stresses in the fatigue strength of axles
Maxwell, C. R. Instrumentation for developing and test-	Technical cohesive strength of metals (D) A-145 MEYER, C. A.	Nelson George Herbert. ObituaryRI-68
ing Diesel engines	Model tests of two types of vibration	NELSON, J. W.
May, G. O. Depreciation estimates in appraisals of	dampers A-59 MEYERS, G. J., JR.	Symposium on embrittlement (D) 436 Nebad, A. J.
manufacturing equipment (D) 516	On some of the essentials of control-chart	Mercury for the generation of light, heat.
MAYERS, M. A. Vaporization inside horizontal tubes—II	analysis (D)	NEUMANN, E. P.
benzene-oil mixtures (D) 199	MILES, J. C.	Simple air ejector A-75
McAdam, D. J., Jr. Technical cohesive strength of metals	Improved hand-fired furnace for high- volatile coals	Newkirk, B. L. Effect of diametral clearance on the load
(D)	Piston effect of trains in tunnels (D) 82	capacity of a journal bearing (D) 461

A-165 RI-68

1-100 1-195 201 19 A-59 691 671

708 41 A-43

567 A-96 -193 529 645

315

-197 A-54 452 152 -136

A-45

453

A-85 I-68 436 655 A-75

Newmark, N. M. Note on calculation of influence surfaces	Partridge, E. P. Field data from the embrittlement de-	PLATES Rushling of rectangular plates with
in plates by use of difference equations (D)	tector	Buckling of rectangular plates with built-in edges
Nichols, N. B.	Method for determining unsteady-state	Buckling of the circular plate beyond the critical thrust
Experimental studies of automatic control (D)	heat transfer by means of an electrical analogy	Determining critical states of equilibrium of plates and shells under initial stress. A-27
Optimum settings for automatic con- trollers	Radiation configuration factors using	Photoelastic analysis of transverse bend- ing of plates in the standard trans-
Noll, C. A.	PATCH, FRED R. Obituary	mission polariscope
Silica removal by improved magnesia process (D)	Peacock, Dundas Depreciation estimates in appraisals of	PLYWOOD
Noltein, G. F.	manufacturing equipment (D) 517	Progress in methods of edge-gluing lumber and veneers
Operation of supercharged engines in pipe-line service (D) 328	Peloubet, M. E. Depreciation estimates in appraisals of	POLLAK, ARTHUR
Nomography. See Graphical Methods.	manufacturing equipment (D) 517	Separation of liquid from vapor, using cyclones
Nonferrous Metals and Alloys Relaxation resistance of nickel-alloy	Peskin, L. C. Nomographic charts	Poritsky, H.
Springs	Peters, J. C. Experimental studies of automatic control 247	Self-excited oscillations in dynamical systems possessing retarded actions
Francis-turbine installations of the Norris	PETERSON HOWARD R	(D)
and Hiwassee projects	Stability characteristics of turbine oils. 227 Peterson, R. E.	Potter, A. A. Corrosion of unstressed steel specimens
High-performance fins for heat transfer. 489	Mechanical properties of materials and	and various alloys by high-temperature steam
Norton, Charles Ladd. ObituaryRI-68 Norton, F. H.	design (BR)	POULTER, T. C.
Report on tubular creep tests 769	Method of determining pressure drop for	Mechanism of cavitation erosion A-31
Norton, P. T., Jr. Depreciation estimates in appraisals of	oil-vapor mixtures flowing through furnace coils	POUND, JOSEPH HORACE. Obituary RI-69 POWELL, E. B.
manufacturing equipment 509	PETROLEUM PIPE LINES Some problems in the selection and	Experimental study, feedwater treatment
Nozzles Bibliography	operation of centrifugal pumps for oil	for 1400-lb boiler operating pressure (D)
Effect of variable viscosity on boundary layers, with a discussion of drag	and gasoline pipe lines 607 Petroleum Refineries	Powers, S. T.
measurements		Problems in water-steam cycle of central steam-generating and decentralized control systems, Parkchester 685
nozzles	elevated temperatures in petroleum re-	control systems, Parkchester 685 Power Plants
Coulee 20		Francis-turbine installations of the Norris
Simple air ejector	Method of determining pressure drop for oil-vapor mixtures flowing through	and Hiwassee projects
	furnace coils	Mercury for the generation of light, heat,
0	Air-heater facts: 1926-1941 219	and power
•	Vaporization inside horizontal tubes—II benzene-oil mixtures	Power Plants—Hydroelectric Structural-steel tolerances at Bonneville. 721
OBER, T. M. Structural-steel tolerances at Bonneville. 72	Petroleum-Well Equipment Calculation of critical speeds of oil-well	POWER PLANTS-STEAM
Oir	pumping system	Advanced design—original features em- bodied in new 160,000-kw Oswego
Bibliography of turbine oils 229	Analysis of a continuous process by a	Steam Station
Oil Pipe Lines Bibliography		Burning pulverized anthracite in steam
Centrifugal pumps for oil and gasoline pipe lines	trol (D)	Hydraulic-engineering problems at South-
OIL-WELL PUMPING	Optimum settings for automatic controllers (D)	wark Generating Station
Calculation of critical speeds of oil-well	Photoelasticity (BR) A-54	analytical approach
OLDS, E. G.	static lines	Design of high-pressure plant and the properties of fluids at high pressure
On some of the essentials of control-chart analysis	Photoelastic analysis of transverse bend- ing of plates in the standard trans-	(BR)
OPTICS	mission polariscope	Mechanism of cavitation erosion A-31 PRODUCT INSPECTION. See also Flaw De-
Radiation configuration factors using light in furnace models	Di d alaskala	tection. On some of the essentials of control-chart
Ormondroyd, J. Mechanics applied to vibrations and	Physics Introduction to kinetic theory of gases	analysis 521
balancing (BR) A-50	(BR)	PULVERIZED COAL Burning pulverized anthracite in steam
Orning, A. A. Combustion of pulverized fuel—mecha-	PIERSON, JOE W. ObituaryRI-69	power plants
nism and rate of combustion of low-density fractions of certain bitu-	Pipe Bends Expansion of formulas for calculating	Combustion of pulverized fuel—mecha- nism and rate of combustion of low-
minous coals 49	loads, rotation, and deflections of	density fractions of certain bituminous
OSCILLATION. See Vibration. OSCILLOGRAPHS	quarter bends and tangents of pipes (Design Data)	Some problems in pulverizing and burn-
Instrumentation for developing and testing Diesel engines	PIPE AND FITTINGS	ing Midwest coals 169 PULVERIZERS
Osgood, W. R.	flexibility of piping having two or	Burning pulverized anthracite in steam
Note on plane strain A-20 OSTERMANN, R. M.	Flow of a flashing mixture of water and	Combustion of four fuels in one boiler 65
Modern steam passenger locomotives—	steam through pipes 657	Some problems in pulverizing and burning Midwest coals
research and design (D)	Application of cathodic protection for	Pumps
Ice prevention by air-lift system at Grand Coulee	Operation of supercharged engines in	Energy transfer between a fluid and a rotor for pump and turbine machinery. 567
OWENS, F. R.	Protecting buried metals against corro-	Pumps—Axial-Flow Comparative characteristics of fixed-
Field data from the embrittlement de- tector (D)	sion 805	and adjustable-blade axial-flow pumps. 599
	Plastic Flow Plastic flow as an unstable process A-91	Pumps—Centrifugal Bibliography
<u>_</u>	PLASTIC TORSION	Complete characteristic diagram, double volute pump
P	An extension of the sand-heap analogy in plastic torsion applicable to cross	Some problems in the selection and opera- tion of centrifugal pumps for oil and
Pinne V E	sections having one or more holes (D) A-146	gasoline pipe lines 607
PARRY, V. F. Preparation of stable nonslacking fuel by	PLASTICITY An extension of the sand-heap analogy in	Test characteristics of a combined pump- turbine model with wicket gates 731
steam-drying subbituminous coal and lignite	plastic torsion applicable to cross sec-	Test stand for centrifugal and propeller pumps
Partington, James	Equiareal pattern of stress trajectories in	Pumps—Deep-Well Calculation of critical speeds of oil-well
Modern steam passenger locomotives— research and design (D)	plane plastic strain (D)	pumping system

Pumps—Jet Simple air ejector	Roe, R. C. Advanced design—original features embodied in new 160,000-kw Oswego	Shafts and Shafting Investigation of self-excited torsional oscillations and vibration damper for
ejector problem	Steam Station (D) 5	60 induction-motor drives
PUMPS—PROPELLER Hydraulic-engineering problems at South- wark Generating Station	ROGERS, PAUL K. Obituary	Francis-turbine installations of Norris and Hiwassee projects (D)
Test stand for centrifugal and propeller pumps	springs 4	Test characteristics of a combined pump- turbine model with wicket gates (D) 742
Pumps—Testing Test characteristics of a combined pump- turbine model with wicket gates 731	ROMER, J. B. Corrosion of unstressed steel specimens and various alloys by high-temperature steam (D)	Sharpe, Lee Griswold, ObituaryRI-70 Shaw, Edwin Coupland, ObituaryRI-70 15 Shaw W A
Test stand for centrifugal and propeller pumps	ROSENBERG, C. B.	Heat transfer, pressure drop, and fouling
Purcell, T. E. Embrittlement of boiler steel—experiences with the Schroeder detector.	Pre-exhaust-gas pressure measurements for indicating Diesel-engine perform-	rates of liquids for continuous and non- continuous longitudinal fins
397, (D) 432 PYZEL, EWALD. Obituary	Theoretical consideration of power loss caused by combustion knock (D) 3	Determining critical states of equilibrium of plates and shells under initial stress A-27 Theory of plates and shells (BR)
0	Rotors Effect of foundation stiffness on resonant frequencies of rotating machines (D). A-Energy transfer between a fluid and a	rotor for pump and turbine machinery
Q		67 (D)
QUALITY CONTROL. See Product Inspec-	Method of estimating the circulation in	Note on angular motions of ships (D) A-100 Shirley, Robert. Obituary
tion.	RUBBER Some dynamic properties of rubber bonded to metal	SHORT, BYRON E. Condensation of saturated Freen-12 vapor on a bank of horizontal tubes
D	RUSH, CHARLES WILLIAM. Obituary RI-	792 Heat transfer, pressure drop, and fouling
N.	Russell, F. E. Modern steam passenger locomotives— research and design (D)	rates of liquids for continuous and noncontinuous longitudinal fins (D) 803 Review of heat-transfer coefficients and
RADIATION. See also Heat Transfer. Performance of flat-plate solar-heat	RYDER, E. A. Heat conditions in bearings (D) 4	friction factors for tubular heat ex- changers
Radiation configuration factors using light in furnace models		SIEDER, E. N. Heat transfer, pressure drop, and fouling rates of liquids for continuous and non-
RAILBOAD TRACK Dynamics of straight railroad track A-149	S	continuous longitudinal fins (D) 803 SKAGEN, SVERRE. Obituary
Stress research progress report, India Railway (BR)	Sadowsky, M. A.	SLONNEGER, J. C. Calculation of critical speeds of oil-well pumping system (D)
RAILBOAD TRAINS Analysis of longitudinal motions in	An extension of the sand-heap analogy in plastic torsion applicable to cross	SMITH, A. R.
trains of several cars (D)	sections having one or more holes (D). A-1 Equiareal pattern of stress trajectories in	SMITH, C. W.
RAILROAD TUNNELS Piston effect of trains in tunnels	plane plastic strain (D) A- SALDIN, H. B.	rotor for pump and turbine ma-
RATHBONE, T. C.	Model tests of two types of vibration dampers	chinery. 567 Experimental studies of automatic control
Effect of foundation stiffness on resonant frequencies of rotating machines (D). A-48 Results of laboratory embrittlement test-	SALISBURY, J. KENNETH Steam-turbine regenerative cycle—an	Operation of supercharged engines in pipe-line service (D)
ing of boiler waters (D)	SAWYER, R. TOM Operation of supercharged engines in	231 SMITH, F. C. Study of damper characteristics (D) 152 SMITH, R. B.
manufacturing equipment (D) 518 RAVESE, T. Method of estimating the circulation in	pipe-line service (D)	Energy transfer between a fluid and a rotor for pump and turbine machinery (D)
steam-boiler-furnace circuits 275		272 SMOKE Wind-tunnel tests to establish stack
READY, L. S. Depreciation estimates in appraisals of manufacturing equipment (D) 518	Future research work needed in me- chanical-spring problems	height for Riverside Generating Sta- tion
REASER, WILLIAM E. Automatic burning control in rotary kilns	Scharff, M. R. Depreciation estimates in appraisals of manufacturing equipment (D)	SMOKE STACKS Bibliography
REED, R. M. Application of the Girbotol process to		SODERBERG, C. RICHARD Report on tubular creep tests
industry	Schilling, R. Modern passenger-car ride characteris-	SOLAR-ENERGY CONVERSION
Condensation of saturated Freon-12 vapor on a bank of horizontal tubes 787 REISSNER, ERIC	SCHMIDT, A. O. Correlation of coefficient of friction with	Performance of flat-plate solar-heat collectors 91
Distribution of stress in built-in beams of narrow rectangular cross sectionA-108		Solberg, H. L. Corrosion of unstressed steel specimens and various alloys by high temperature
REYNOLDS, A. H. Symposium on embrittlement (D) 440	Schroeder, W. C. Summary of papers composing the sym-	steam
RICE, CHARLES DELOS. ObituaryRI-70 RICH, GEORGE R.	posium on embrittlement	Condensation of saturated Freon-12 vapor on a bank of horizontal tubes
Francis-turbine installations of the Norris and Hiwassee projects	SCORAH, R. L. Vaporization inside tubes—II benzene-	SOREN, T. H.
RIGHTMIRE, BRANDON G. Hydraulies of steady flow in open channels (BR)	oil mixtures (D)	200 Mercury-vapor process (D)
Roast, H. J. Eddy-current method of flaw detection		599 Specifications Structural-steel tolerances at Bonneville. 721
in nonmagnetic metals (D) A-44 ROBERTS, J. F. Francis-turbine installations of the Norris		SPELLMAN, C. B. Comparative characteristics of fixed- and adjustable-blade axial-flow pumps
and Hiwassee projects	SENGSTAKEN, J. H. Air-heater facts: 1926-1941 (D)	(D)
Design of Diesel-engine foundations (D). 348 Pre-exhaust-gas pressure measurements for indicating Diesel-engine perform-	Separations Bibliography Separation of liquid from vapor using	High-performance fins for heat transfer. 489 40 Springs
ance (D)	cyclones.	31 Bibliography. 481 Future research work needed in me-
Internal-combustion-engine casualty experience (D)	Effect of foundation stiffness on resonant frequencies of rotating machines (D)A	chanical-spring problems

-175 I-70 I-70

-100 I-72

I-72

Springs (continued) Helical-spring tables—scope and arrangement	STRESSES (continued) Plastic flow as an unstable process	THOMPSON, JOHN IBBOTTSON. ObituaryRI-74 THOMSON, ELIHU. Obituary
Nomographic charts	Railroad rails, research (BR)	Effects of surface finish on journal-bear- ing performance (D)
design of helical springs	application to the study of crankshaft stresses	Tiger, H. L. Silica removal by improved magnesia
STAMM, A. J. Variation in shrinking and swelling of	Solution of problems of elasticity by the framework method (D)	Tolerances Structural steel tolerances at Bonneville. 721
wood. 379 STATICALLY INDETERMINATE STRUCTURES Elastic energy theory (BR)	Technical cohesive strength of metals (D)	Torque Transient torques in induction-motor drives (D)
Steam. See also Corrosion, Embrittlement. Corrosion of unstressed steel specimens and various alloys by high-temperature	thin-walled open section under com- pressive and bending loads A-103 Two problems of thermal stress in the infinite solid	Torsion of multiconnected thin-walled cylinders
steam	STRUCTURAL STEEL Structural-steel tolerances at Bonneville. 721	TRAY, S. E. Experimental study, feedwater treatment for 1400-lb boiler operating pressure
STEAM TURBINES Advanced design—original features em- bodied in new 160,000-kw Oswego	STRUCTURES. See also Beams, Columns, Cylinders, Gates—Spillway. Buckling of semimonocoque structures	(D)
Steam Station	under compression. A-117 Distribution of stress in built-in beams of narrow rectangular cross section	process (D)
dampers	Note on calculation of influence surfaces in plates by use of difference equations (D)	(D)
Stability characteristics of turbine oils 227 Steam-turbine regenerative cycle—an	Relaxation method in engineering science (BR)A-51 Torsion of multiconnected thin-walled	achieves virtually continuous produc-
analytical approach	cylinders. A-72 Torsional and flexural buckling of bars of thin-walled open section under com-	Report on tubular creep tests
and various alloys by high-temperature steam 303	pressive and bending loads	elevated temperatures in petroleum re- fineries as still tubes and other parts 113 Tunnels
Refinery equipment bibliography 119 Steels and alloys developed for use at elevated temperatures in petroleum re-	STURM, R. G. Technical cohesive strength of metals (D)	Piston effect of trains in tunnels
fineries as still tubes and other parts . 113 Stepanoff, A. J.	Sullivan, R. J. Application of cathodic protection for	Energy transfer between a fluid and a rotor for pump and turbine machinery. 567 TURBINE OIL
Some problems in the selection and operation of centrifugal pumps for oil and gasoline pipe lines (D)	corrosion prevention	Bibliography. 229 TURBOCHARGERS. See Superchargers. TURBULENCE. See Flow of Fluids.
STERN, F. B., JR. Brittle coatings for quantitative strain	Surdy, C. J. Modern steam passenger locomotives— research and design (D)	
measurements	Surface Finish Effects of surface finish on journal bearing performances (D)	V
pipe-line service (D)	SWITZER, F. G. Long continuous columns	Valuation Depreciation estimates in appraisals of
Stoker, J. J. Buckling of the circular plate beyond the critical thrust	Mechanism of cavitation erosion (D), A-193	manufacturing equipment 509 Valves
STONE, CHARLES WATERMAN. Obituary RI-73 STORRS, B. D.	T	Check valves. 537 Developments in regulating outlet valves. 85
Application of the Girbotol process to industry	TALLMAN, FRANK GIFFORD. Obituary RI-73	Van Brunt, John
STRAIN Note on plane strain	TAR Temperature-viscosity curve	Operating experiences with high-pressure high-temperature unit at Des Moines (D)
quers. Strains	Effect of foundation stiffness on resonant frequencies of rotating machines (D) A-48	VAN DEGRIFT, T. C. Short-gage-length extensometer and its application to the study of crankshaft
Buckling of semimonocoque structures under compression	TERRY, R. V. Francis-turbine installations of Norris and Hiwassee projects (D)	Stresses
Experience with intercrystalline cracking on railroads (D). 432 Results of laboratory embrittlement test-	Test characteristics of a combined pump- turbine model with wicket gates 731 Testing Machines	Corrosion of unstressed steel specimens and various alloys by high-temperature steam (D)
ing of boiler waters393, (D) 442 Symposium on embrittlement (D)41	High-speed tension tests at elevated temperatures—II and III (D) A-45	VAN LAW, DURBIN Piston effect of trains in tunnels (D) 82
Strength of Materials (BR)	THAYER, STARR Protecting buried metals against corrosion	VAN NYMEGEN, D. W. Effects of surface finish on journal bearing performance (D)
Brittle coatings for quantitative strain measurements	THERMAL STRESSES Two problems of thermal stress in the infinite solid	Vander Eb, H. J. Internal-combustion-engine casualty experience
critical thrust	THERMODYNAMICS Measurement of latent heat by gas-cur-	Vaporization in Tubes Bibliography
Determining critical states of equilibrium of plates and shells under initial stress. A-27 Distribution of stress in built-in beams of	rent method	Vaporization inside horizontal tubes 193 Ventilation. See also Air Conditioning. Piston effect of trains in tunnels 77
Equiareal pattern of stress trajectories in	Nature of thermodynamics (BR)	VIBRATION Analysis of longitudinal motions in trains
plane plastic strain (D)	analytical approach	of several cars (D)
Plastic torsion applicable to cross sections having one or more holes. (D)	Turbines for power generation from in- dustrial-process gases	pumping system. 200 Design of Diesel-engine foundations. 341 Effect of foundation stiffness on resonant
Graphical analysis of impact of elastic bars	THOMAS, W. P. Advanced design—original features em- bodied in new 160,000-kw Oswego	frequencies of rotating machines (D). A-48 Investigation of self-excited torsional os- cillations and vibration damper for
ard code	Steam Station (D)	induction-motor drives
ing of plates in the standard transmission polariscope	Operation of supercharged engines in pipe-line service (D)	Model tests of two types of vibration dampers

VIBRATION (continued) Modern passenger-car ride characteristics (D)	Warren, G. B. Advanced design—original features embodied in new 160,000-kw Oswego Steam Station (D). Mercury-vapor process (D). WATER Properties of ordinary water-substance (BR)	A-197	Wohlenberg, W. J. Condensation of saturated Freon-12 vapor on a bank of horisontal tubes. Wolf, E. F. Wind-tubenel tests to establish stack height for Riverside Generating Station Wood. See also Plywood. Bibliography—Shrinkage. Variation in shrinking and swelling of wood. Wood, J. K.	67 38
VISCOSITY Effect of variable viscosity on boundary layers	for 1400-lb boiler operating pressure. Field data from the embrittlement detector.	417	What does the practical spring designer need?	47
VOLEMER, EDWARD F. Obituary RI-75	WATER TREATMENT Experimental study, feedwater treatment for 1400-lb boiler operating pressure	121	Vaporization inside horizontal tubes—II benzene-oil mixtures	19
VON HOHENLEITEN, H. L. Wind-tunnel tests to establish stack height for Riverside Generating Station 671	Waters, E. O. Characteristics of centrally supported journal bearings	711	WOODWORKING MACHINERY Progress in methods of edge-gluing lumber and veneers	38
von Kármán, Th. Anniversary volume, errata	Webre, A. L. Separation of liquid from vapor, using cyclones (D)	41	WORK, L. T. Separation of liquid from vapor, using cyclones WRAGE, E. W.	3
VON MALTITZ, H. K. Progress in methods of edge-gluing lumber and veneers	Whirl, S. F. Embrittlement of boiler steel—experiences with the Schroeder detector 397, (D)	442	Foren mill for rolling seamless tubes achieves virtually continuous produc- tion	74
W	WIKANDER, O. R. Analysis of longitudinal motions in trains of several cars (D)	A-99	Y	
WAGENBEIL, EDGAR WHITE. ObituaryRI-75	***************************************	262	Young, F. L.	
WAHL, A. M. Helical-spring design stresses for a stand-	WIND TUNNELS. See Aeronautics, Smoke. WINDOWS—HIGH-PRESSURE Mechanism of cavitation erosion	A-31	Condensation of saturated Freon-12 vapor on a bank of horizontal tubes	787
ard code. 476 Investigation of self-excited torsional oscillations and vibration damper for induction-motor drives. A-175 Transient torques in induction-motor drives (D). A-96	WINTERS, RAY Some problems in pulverizing and burning Midwest coals (D) WISLICENUS, G. F. Test characteristics of a combined pumpturbine model with wicket gates (D)	175 743	Z	
WALKER, LEE EARL. ObituaryRI-75	Test stand for centrifugal and propeller		ZAHN, O. F.	
WANG, TSUN KUEI Buckling of semimonocoque structures under compression	pumps. Witt, J. C. Automatic burning control in rotary kilns	619	Hydraulic characteristics of fuel-injection nozzles	37:
WARNER, R. W. Application of cathodic protection for corrosion prevention (D)	(D). WOERTZ, B. B. Performance of flat-plate solar-heat col- lectors.	272 91	Experimental studies of automatic con- trol (D)	

or .. 787

on ... 373
n- ... 253
n- ... 759